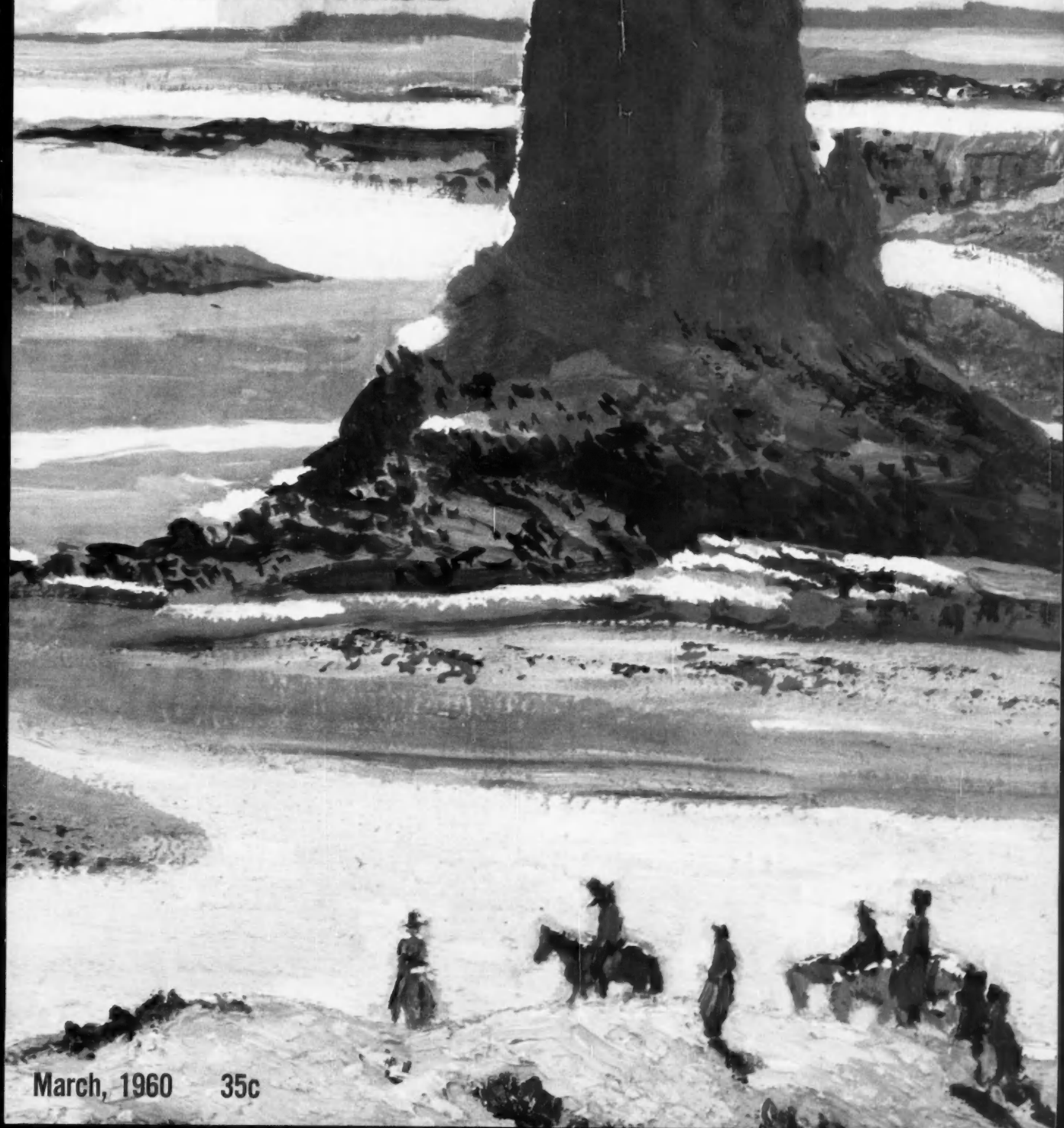


Desert

..... magazine of the
**OUTDOOR
SOUTHWEST**



March, 1960 35c

FREMONT ELLIS

... artist of this month's

cover scene:

"On the Way to the Sing"

Ellis—one of Santa Fe's internationally famous "cinco pintores"—studied the old masters, then went off by himself to paint . . .

Fremont Ellis will have a one-man show at the admission-free Desert Magazine Art Gallery in Palm Desert, Calif., from February 23 to March 14.

Teas Artist Charles Reynolds will show his work at the Desert Magazine Art Gallery from March 15 to April 4.

The Gallery is open seven days a week during the winter season, from 9 a.m. to 6 p.m.

By W. THETFORD LeVINNESS

"YOU LEARN to paint by painting," says Santa Fe's Fremont Ellis, known throughout the Southwest for his likable oil landscapes. "You study the old masters, then you go off by yourself and paint."

Largely self-taught, Ellis speaks from experience. "I had very little education in art," he says. "All my life I've just been painting."

Ellis was born in Virginia City, Montana, while "on tour"—his family was in show business. As a child he traveled vaudeville circuits in many parts of the country, and when he was 15 was in New York City awhile. One day his mother took him to the Metropolitan Museum of Art.

"The paintings I saw there were a sort of revelation," he recalls. "I went back myself many times, and finally an idea took hold. I wanted to be an artist."

He spent three months at New York's Art Students League; since then painting has been his entire career. He settled in Santa Fe in 1919 and built a studio on the picturesque mud-strewn Camino del Monte Sol. Ellis, as much as anyone, helped establish the reputation of this street as the hub of a thriving American art colony. He was one of the "cinco pintores," a Santa Fe group that at-

tained international prominence in the 1920s. (The others were Josef Bakos, Walter Murk, Willard Nash and Will Shuster.)

The bulk of Ellis' landscapes have a Southwestern flavor; there are houses, animals, and people in many of them. He is definitely "representational"—but the term means little to him. He doesn't try to copy what Nature has already done for his subject.

"Leave that to the photographer," he says. "I want my finished product to be a good painting. The subject is merely a means to an end."

He won't become involved in attacks on the so-called "modernists"; instead, he says the true abstractionist and non-objectivist have much to offer.

"Why this constant quarrel with the *avant garde*?" he asks. "There's an abstract and non-objective approach to all my own paintings, and I don't consider such an approach 'modern.' It's actually nothing new. It's been used in good painting through the ages. I think the serious abstractionist and the non-objectivist of today contribute a great deal to contemporary art."

Ellis will say repeatedly that his subject-matter is secondary, but his aspens look like aspens and his Indians look like Indians. And he makes a good living selling his paintings, chiefly to people who never buy strictly "non-representational" art.

Galleries like his work too. As early as 1924 he won the Huntington prize for the best landscape at the Los Angeles Museum, and honors have come swiftly ever since. Recent awards include the Adele Hyde Morrison prize and bronze medal at the Oakland (Calif.) Art Gallery in 1953, and two highly coveted Southwest honors in 1958—the purchase prize at the art show held yearly at Springville, Utah; and the first prize in the annual Rodeo de Santa Fe exhibition at the Museum of New Mexico in Santa Fe.

Ellis enjoys exhibiting his work. He is represented in public and private galleries throughout the Southwest. When a painting or a group of paintings of his is hung, he usually attends the opening.

After 40 years in Santa Fe, Ellis is a well-liked and respected citizen. His present studio is on Canyon Road, another artery of the art colony he helped found. He attends artists' teas and social events at Santa Fe galleries, and belongs to a local art-film club. He paints on a daily schedule, and travels to many parts of the Southwest on sketching trips.—END

***Bold, tremendous
desert skies
mark Fremont Ellis'
landscapes...***



"Desert Ponies"



"High Noon"



"Serenity"



Fremont Ellis

Publisher's Notes . . .

Next month the newsstand sale price for *Desert Magazine* increases from 35 cents to 40 cents per copy. This "inflationary" step is simply our economic response to the increased cost of paper stock (it went up again February 1st), the Post Office Department advanced rates (hundreds of pounds of *Desert Magazines* are mailed monthly to distributors and newsdealers outside our printing area), and ever-rising labor costs.

Despite the boost in price for individual copies of *Desert*, I think that the average reader will still get a bargain. Reviewing this month's Table of Contents, I will hazard a loose guess that it would cost an individual some 14 weeks time and at least \$5000 to cover the same ground that our authors have done for this March issue.

There are at least three Arizona features, a trip to Sahuaripa in Sonora, Mexico, a couple of southern Utah adventures, and even a look at ice-making in arid Persia. We are particularly proud of the Laura Adams Armer series that starts this month, telling of Indian reservation life in Arizona in the 1920s. The

historical value of Mrs. Armer's sensitive observations will be evident to every reader who follows her into Navajoland.

Recently a reader asked me if *Desert* is primarily a man's magazine. It may be, but I doubt it. We like to think that *Desert* is of value and interest to all the family. It is a fact that at least two of every three letters we receive are written by women.

And thanks to the women, who seem to write the checks and pay the bills, their gifts at Christmas have boosted our subscription list to an all-time high for *Desert*. Our paid subscriptions now number about 23,000 and our newsstand sales are approximately 14,000 a month.

Unless we can get some paper stock replacement in a hurry, heaven knows what our press run will be next month. We received word that seven tons of paper, loaded in a truck for delivery to our printing plant, burned a few days ago!

How much does one month's printing of *Desert* weigh? Last month we used 12,525 pounds of paper.

CHUCK SHELTON, *Publisher*

Desert — magazine of the OUTDOOR SOUTHWEST

Volume 23

MARCH, 1960

Number 3

COVER		"On the Way to the Sing" was painted by Santa Fe Artist Fremont Ellis. This Monument Valley scene, with its lively, expressive colors and easy arrestment of great distances, reflects the artist's work at its best. For a feature article on Ellis, see pages 2-3.
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W. Thetford LeViness

C. R. Appleby

Frank Jensen

Laura Adams Armer

William E. Warne

Weldon D. Woodson

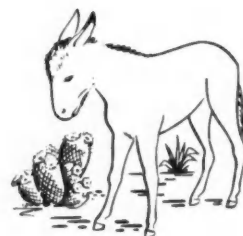
Edmund C. Jaeger

Nell Murbarger

Ethel and Orville Taylor

Luther Morris

Hulbert Burroughs



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LETTERS

... FROM OUR READERS ...

Automobile Graveyard ...

Desert:

Having recently driven over Mexico Route 2, I enjoyed reading Nell Murbarger's story on that road in the January issue. However, I thought she failed to bring out one thing that seems characteristic of Route 2: the great number of abandoned automobiles, trucks and other equipment along this highway. With garage facilities so few and far between, the only thing most Route 2 motorists can do when their cars break down is to remove all parts that can be carried away, and leave the auto shell to rust in the desert.

ROBERT A. BURROWES
Hayward, Calif.

A Misplaced Song ...

Desert:

I have enjoyed Harrison Doyle's stories of early-day life on the Mojave Desert (Aug. and Nov. '59 and Jan. '60), but his memory slipped a little on one statement. He says one of the songs sung by the local barbershop quartets in 1904 was "The Rosary." It happens that this song was not published until 1910—and I am sure it was never sung by a quartet at any time.

CHARLES KELLY
Salt Lake City

(Utah Historian Kelly may be confusing the song, "The Rosary" with the book by the same title. The lyrics were written by Robert Cameron Rogers and were first published in "The Wind in the Clearing,"

in 1894; music was composed by Ethelbert Nevin in 1898. Up to and through the period Harrison Doyle wrote about, some 250,000 copies of the song had been published. In 1910, Florence Barclay's novel, "The Rosary," was published, taking Nevin's song as its theme and inspiration. Writes Doyle: "I did a lot of singing in improvised quartets in Needles. I remember having a sheet music copy of the song long before 1905. We also had the song at home on one of the old cylindrical Edison Home Phonograph records."—Ed.)

Snowbound—With Desert ...

Desert:

Just a note to tell you how much we all enjoy reading your magazine every month. We live on a remote cattle ranch in eastern Utah, and are now snowbound. A local pilot makes a weekly trip to our ranch with the mail, and every month we look forward to receiving our copy of *Desert Magazine*.

My father-in-law, Ray "Budge" Wilcox, recently had the pleasure of guiding Nell Murbarger and a party from the M4 Ranch across the Tavaput Mountains, and I understand she is going to write a story on that trip.

MRS. DON WILCOX
Dragerton, Utah

(For Miss Murbarger's account of the first crossing of the Tavaputs by commercial pack train, see page 24.—Ed.)

Where Is Hard Rock? ...

Desert:

Say man, like what has happened to my favorite periodical? Two monthly features, which except for the last two months, have been in your magazine for many years are "Hard Rock Shorty of Death Valley" and the "Desert Quiz." Maybe you think Harry Oliver makes up for the loss of ol' Hard Rock Shorty. Well, in my opinion he doesn't. Hard Rock Shorty is the best whimsical nonsense I've ever read. Statistics on your reader survey a short while back show that most of your readers look forward to the monthly quiz. Let's have these two fine features back in a fine magazine, huh! Why not ask your large family of devout desert rats if they share my opinion?

LARRY D. ALFORD
Long Beach, Calif.

Desert:

What happened to Hard Rock Shorty and the Desert Quiz? Did you discontinue them for good?

Someday I am going to make a note-book and put the Quiz questions and answers together so I can really study them. Then when I can go back to the desert to live I will know a little about it.

You are to be congratulated on your magazine . . . it is good advertising for the Southwest. We in the Northwest should do something about letting people know about our beautiful country, too. Glacier Park and surroundings has many opportunities for photographs.

MRS. EARLE HOLLINGSWORTH
Martin City, Montana

(Hard Rock, who writes both his column

Continued

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This wonderful mountain is part of a 3 acre parcel located at the corner of Scenic Drive and Boundary Lane in Pinyon Crest, Unit 4, on the famous Palms-to-Pines Highway in Riverside County, Calif.

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— continued —

Recipes for "Carne Seca" . . .

Desert:

But the recipe for preparing the jerky passed on with my father, and I'm wondering if you could supply me with the home-curing method.

MRS. J. H. GRAFTON
Arock, Oregon

pered strong brine. We lower them in slowly and extract them in the same measured fashion—a slow dip that leaves the meat white from the boiling liquid. Then it is hung out on the line to dry. The advantage of this method seems to be that it sears the juice in the meat and at the same time gives a uniform coating of salt and pepper that discourages the flies. The disadvantage is that it tends to make a rather tougher finished product. The other method is to cut up our meat in as thin sheets or strips as possible and, salting and peppering it lightly, set it away on a platter for a few hours. The salt will draw the blood out, and the drained meat is then hung out on the lines in the evening. By morning, in the average desert weather, it is dry enough to discourage, to a great extent, the attention of flies. A little less tough product is the result. . . . Another way to protect against flies is to put the meat in cheesecloth "pockets."—E.J.

Hummers' "Meal Ticket" . . .

Desert:

I filled a wide-mouth jelly jar with sugar-water and tied it on a stick fastened to the firebush. The birds loved it—and so did the bees. I moved the jar. At first the

birds would come near but would not drink. I stood very still and finally a little "rooster" took a sip and flew away. Next day he took two sips. Soon I was feeding both this rooster and his hen regularly, morning and evening.

Finally, the humming pair became so pesky when I worked in the garden that I had to carry the sugar-water with me. They would "buzz" my head until I produced a drink for them, and they would even "chirrup and buzz" the screen door until I fed them—I was even able to coax them into the kitchen!

"Old Chuck," as I call the male hummer, and his hen hatched out two chicks, and now all four of the birds depend on me for sugar-water.

FRANK MERRELL
Glendora, Calif.

A Wonderful Gift . . .

Desert:

Today I received my first issue of your wonderful magazine. It tops all others of this nature that I have had the pleasure to read. *Desert Magazine* contains not only beautiful pictures but many articles of much interest. I am very indebted to my niece and her husband for sending your magazine to me as a gift.

JOE O. BONNEAU
Portland, Oregon

A Desert Lady Passes . . .

Desert:

I am a friend of Mary Smith, and I want to tell you of her recent passing. I'm sure many of your readers are acquainted with Mary Smith and her "smallest store" at

The Romer

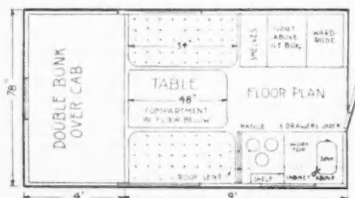
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Agua Caliente Hot Springs, Calif. She passed away Dec. 29 at Malacoats Rest Home at Alpine.

After Mary sold her store at the springs, she bought five acres in Mason Valley, later selling that, too, and coming to live with my husband and me at Campo. She was bedridden in my home for nearly two years. In December, 1958, my husband passed away, and so I had to put Mary in a rest home.

Mary was born in Utah on June 1, 1891. Her maiden name was Mary Elizabeth Lape.

MRS. PAUL JOHNSON
Campo, Calif.

Desert Museum Tunnel . . .

Desert:

We were delighted to see Charles Shelton's fine article about the Arizona-Sonora Desert Museum in the excellent January issue.

In regard to the Desert Museum tunnel: I thought you would be interested to know that this was entirely supervised and financed by the Charles Lathrop Pack Forestry Foundation. It was my privilege to have been the originator and designer. We employed several talented Museum staff members to help with the construction of the dens. We presented this display, and the Water Street Exposition, which we also conceived, designed and built, to the Museum as our contribution. Incidentally, the city of Pittsburgh is copying our plans and will build a similar tunnel in the Highland Park Zoo in that city.

WILLIAM H. CARR
Assistant to the President
Pack Forestry Foundation
Tucson

Letter From a Mountainlion . . .



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See page 24 for Nell Murbarger's account of an M-4 Ranch pack trip over the Tavaput Mountains

On the Road to Sahuaripa



 TINY CRAFT AFLOAT ON YAQUI RIVER IS A "PONGO," WHICH FERRIES VEHICLES MAKING TRIP TO AND FROM TOWN OF SAHUARIPA

The author discovers a new back-road in Sonora when he helps his new friend get to Sahuaripa for a fiesta . . .

By C. R. APPLEBY

IN SONORA the great Mexican mountain chain of the Sierra Madre Occidental begins. Along its western slopes lies a high desert country of dwarf forests, scattered pueblos and placid rivers flowing south. It is a land of ocotillo, pitahaya, mesquite and

acacia; a rugged land whose people are supported by cattle and mines.

Recently my wife and I traveled this part of Sonora in our pickup truck. From Douglas, Arizona, we meandered south 233 miles to Sahuaripa, then made a right angle turn

west to Hermosillo and the Gulf of California.

The Mexican part of the trip began at Agua Prieta, the border town which adjoins Douglas. Here we picked up our tourist permits (\$3 per person), car permit (gratis) and auto insurance (nominal, with rates depending upon the length of time the insurance is to be in force).

The first settlement that we met below Agua Prieta was Fronteras. It holds a small place in history as Sonora's first permanent military post. It was established in the late 17th Century to keep the frontier against the Apaches. In 1739 the captain of the Fronteras presidio was killed by these Indians, leaving to a son his example of courage and his name—Juan Bautista de Anza. Thirty-six years later the younger Juan Bautista de Anza led the first band of California settlers across the deserts and north to San Francisco Bay.

This historical digression is my sole excuse for mentioning Fronteras. To the traveler it offers only a glimpse of adobe houses clustered on the plain.

At the next settlement along the route, the dun and dusty Esqueda, we turned east for a side trip to the Bavispe River. The first 10 miles of this road was a delight. The last eleven was as bad as anything I have been over in Mexico and should not be attempted except in a vehicle with plenty of road clearance. The road ends at a spot called La Playa, where the Bavispe spreads out in a long narrow lake behind Angostura Dam.

The lake is famous for the huge black bass that abound there. Across the water lies a ranch and a lodge of sorts built to house visiting fishermen. We camped on the west bank where we learned just how cold the Sonora hills can get with a night-long wind whistling over our sleeping bags.

Returning to Esqueda, we drove south again along the channel of a stream called the Fronteras or Nacozari. The road crosses rolling hills studded with scrub oak. Dove and quail are plentiful. Sleek Sonoran jackrabbits showed their buff-white hindquarters as they scattered ahead of the pickup.

We passed through Nacozari in midafternoon. Here as in many copper mining towns the houses cling to the sides of a gulch. Across the rooftops the lowering sun struck the ter-

remains of what might have been some Assyrian ruin, but which in actuality was the remains—huge concrete steps along the hillside—of a copper refinery.

The road winds south along a river gorge, then out into the plains and through occasional pueblos of drab unplastered adobe. Vaqueros in twos and threes, their long chaps dangling below the stirrups, reined their horses from the road to let us pass. We picked up gas in Cumpas. By the last light of sunset we entered Moctezuma.

Moctezuma is a town that never quite recovered from the revolutions that swept Mexico early this century. Its population (around 2500) is today what it was 70 years ago. It is a colonial town with some fine old buildings, but an air of somnolence and decay pervades the place.

Hotel Moctezuma faces the plaza and adjoins the church. Clean, inexpensive and quite elementary, I recommend it only to those who are familiar with Mexican country hotels. Meals are served here.

Dinner was finished and my wife had retired weary from the day's long drive. I sat chatting with Moctezuma's 24-year-old physician and its 28-year-old dentist.

The young dentist was depressed. His wife was off with her parents in the remote hill town of Sahuaripa. His pickup truck had broken down. An important fiesta was only a day away.

Was I, by chance, going to Sahuaripa?

Sorry, I told him. Our plans were to slant southwest into the Sonora River valley and proceed to Hermosillo by way of the old capital of Ures.

Ah! But we could go to Hermosillo by way of Sahuaripa, he said. A little longer, perhaps, but Sahuaripa was a fine town. Very old, very isolated.

I studied my maps. Sahuaripa lay south over a couple of mountain ranges and near the upper reaches of the Yaqui River. The distance was only 110 road miles, and we were out to see eastern Sonora, I reasoned. Our time was our own.

Sure, I told the dentist, we would go to Sahuaripa.

He was elated. He paid our hotel bill (something less than a dollar, U.S.) over my protests. We would leave early the next morning.

How long would it take us to drive from Moctezuma to Sahuaripa?

"Diez horas," he answered.

Ten hours to cover 110 miles? Either he was mistaken or the road was miserable. It was too late to back down on my promise.

The dentist was not mistaken. We left at eight the next morning and

arrived at our destination at six in the evening.

I advise those traveling in conventional vehicles to take the southwest-bearing route out of Moctezuma. It offers a far easier way to Hermosillo.

Our trip to Sahuaripa was a rugged one. It led through only one small pueblo, Tepachi. The hills over which we climbed were thickly forested with mesquite and acacia. Here and there the sunlight was caught in hundreds of white blossoms resembling morning-glories. These delicate flowers sparkled on the otherwise bare limbs of the *palo santo* or *tisuan* tree.

No game was visible, though it could easily have hidden in the dense stunted forest. We asked our traveling companion about it. There was plenty of game in the hills, he said. Deer, lion, *tigre*, fox, wolf, *javelina*, wild turkey and partridge.

Coming to the edge of a cliff we got our first stunning look at the Yaqui River. It was near a ranch aptly called La Ventana—"the window." A broad blue ribbon uncurled through gorges and slopes clad in organpipe cacti and ocotillo. We crossed on a *pongo* or small ferry. A final line of mountains separated us from Sahuaripa.

The reunion was a happy one for our dentist friend. His pretty wife and baby daughter, his wife's parents, Don Carlos and Dona Antonia, and a covey of in-laws gathered to greet him. My wife and I were given buckets of hot water to bathe with and a welcome dinner. Later the dentist and his spouse went off to the dance that climaxed the fiesta. Declining their invitation to come along, we toppled into our beds at the Hotel Las Palmas.

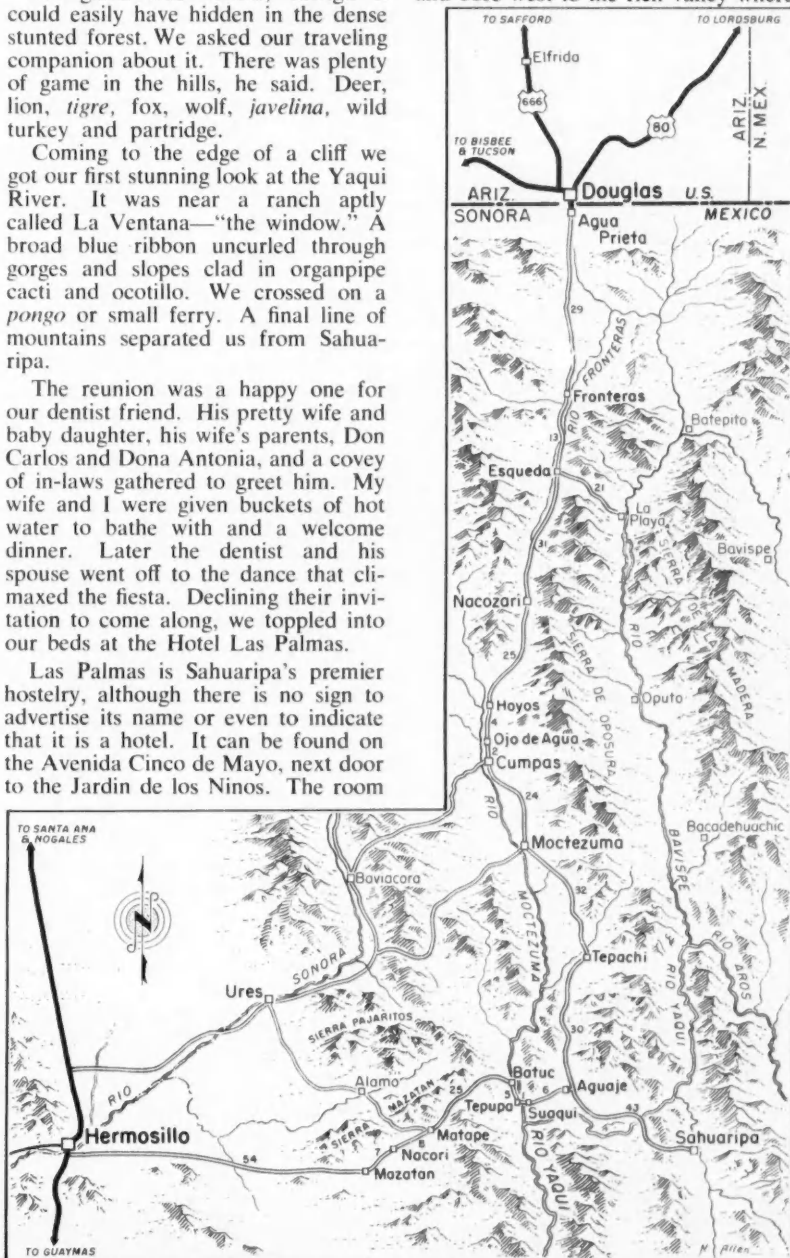
Las Palmas is Sahuaripa's premier hostelry, although there is no sign to advertise its name or even to indicate that it is a hotel. It can be found on the Avenida Cinco de Mayo, next door to the Jardín de los Niños. The room

rate for two is 10 pesos per day—80c in U.S. currency. The price is a fair one.

We ate all of our meals, save one, with the family of Don Carlos. The exception was when we sampled the local restaurant (Las Palmas serves no meals) and found the food quite good.

The day following the fiesta was a day of rest. We passed it sitting in the outer doorway of our room and rambling through the sunlit streets. We left for Hermosillo early the next morning.

Back across the river ferry we went and bore west to the rich valley where





CHURCH AND FORTRESS WERE COMBINED IN THIS ANCIENT MISSION AT TEPUPA. THERE ARE FIRING PORTS IN THESE ROOFLESS ROOMS WHICH LOOK OUT OVER THE VALLEY OF THE MOCTEZUMA NEAR YAQUI JUNCTION.

the Rio Moctezuma empties into the Yaqui. We passed through the village of Suaqui. Spray engulfed us as we made a running ford of the Moctezuma. Ahead in the place called Tepupa lay a splendid ruins that Don Carlos had told us about.

The ruins, terraced on a hillside that commanded the valley, were of a church three centuries old. Pioneer Jesuits located a mission here in 1629. The edifice was probably raised during the middle years of the century, around the time that the Puritans were extending their log towns on the Massachusetts shore and the Sun King, Louis XIV, was building the palace walls at Versailles. That portion of the mission containing the altar is in decent repair and is used for worship by the residents of Tepupa. The arches and roofless rooms of the east part are frequented by courting couples and village idlers who gaze by the hour on the brocaded green of the Rio Moctezuma valley below.

A few miles north in Batuc is another church, of later vintage but still ancient, and near it a lovely empty *capilla*, unused except by the vultures that crowd its tower.

Now the road wound monotonously between peaks and across high ridges and at last descended into the wide coastal plain. At dusk we reached Hermosillo, which to us, after five days in the backlands, sparkled like a metropolis.

We had been through country that is quite accessible but rarely visited, a place where tourists seldom tread.

TODAY ONLY VULTURES USE THE CAPILLA AT BATUC, ONE OF SEVERAL OLD AND HANDSOME CHURCHES IN MOCTEZUMA VALLEY

The area, though, is not without charm for the mildly adventurous. Its climate is salubrious, its history fascinating and its people kindly and hospitable.

If you have an appetite for new kinds of desert country, try foraging in eastern Sonora.—END

True or False

These questions cover a wide range of

Southwest subjects—botany, geography, history, Indians and mineralogy. A fair score is 12 to 14 right answers; 15 to 17 is good; 18 or over is excellent. Answers are on page 38.

1. A rattlesnake adds a new button to its tail once a year. — True... False...
2. Sotol was one of the food plants of desert Indians.—True... False...
3. Capitol Reef National Monument was set aside to preserve Nevada's first state capitol at Carson City.—True... False...
4. Billy the Kid played a prominent role in the Curry County War.—True... False...
5. The mineral cinnabar yields quicksilver.—True... False...
6. Badwater is a famous waterhole in Death Valley.—True... False...
7. According to legend, the Enchanted Mesa of New Mexico is the ancient home of the Acoma Indians. — True... False...
8. The Phoenix Dons was a vigilante group that kept law and order in the city in the 1880s. — True... False...
9. One of the most popular mineral collecting locales with rockhounds is at Wiley's Well, Calif.—True... False...
10. The kangaroo rat carries its young in a pocket in its skin. — True... False...
11. Ironwood trees have thorns. — True... False...
12. The padres Kino and Garces made many trips of exploration together.—True... False...
13. In locating a mining claim, the notice of location should be placed at all four corners of the claim.—True... False...
14. Tombstone, Ariz., was once a great silver mining camp. — True... False...
15. Blossom of the saguaro cactus is crimson.—True... False...
16. Author of the famous stories about the frog that never learned to swim was Dick Wick Hall. — True... False...
17. The stream which Major Powell called the Dirty Devil is now known as the Little Colorado. — True... False...
18. The date palm tree is not a native of North America.—True... False...
19. One of the nation's largest buffalo preserves is in Monument Valley on the Utah-Arizona border. — True... False...
20. Baja California's Laguna Salada is one of the best sport fishing grounds on earth.—True... False...

HE HUNTS LIONS . . .



HOLT, STORMY AND SHEBA
ON A RABBIT HUNT

. . . WITH A LASSO

Milt Holt "Brings 'Em Back Alive"

—the hard way

By FRANK JENSEN

MILT HOLT, professional guide and lion hunter from Gunlock, Utah, does most of his "hunting" with a lariat. He's more interested in bringing back the big cats alive.

"It's like lassoing a steer—with one difference," says

Holt. "With mountain lions you've got 200 pounds of live fury on the other end of the rope."

Holt has an intuitive knowledge of wild animals and their ways that has put him in a class by himself. Genial and mild-mannered to the point of being easy going, he is a far cry from the stereotyped rugged outdoorsman. In his own element, however, he can outstalk the mountain lion at his own game—and that takes quite a bit of doing, for these creatures are one of the few predatory animals that have survived the infringements by civilization on the mountain wildernesses of the West. The big cats are cagey, seldom allowing themselves to be seen. A pack of

LION HUNTER-- CONTINUED



SHEBA "NEARLY ALWAYS COLLECTS A CROWD" WHEN SHE STROLLS DOWN ST. GEORGE, UTAH, MAIN STREET

well-trained dogs as well as horses are almost a necessity for any hunter who expects to tree a lion.

Holt's personal twist—roping the lions—adds danger and excitement to this "game." A few years ago any hunter in this business would have said bringing in a live mountain lion on the end of a rope was an impossibility. Milt Holt's secret lies in drugging the animal once he can get a needle past the flailing claws. "Otherwise a cat would beat himself to death against the bars of a cage," he explains. The easy-going hunter, who guides dudes into some of Southern Utah's best mountain lion country, hopes to make his collection of big cats pay off. He has already used his dogs and lions in a Disney film as well as several television shorts.

Holt was born and raised in the Mormon hamlet of Gunlock, a farming and ranching community 20 miles northwest of St. George. The town was named for William "Gunlock Bill" Hamblin, a Mormon scout who was one of the best marksmen of his day. It was Hamblin who split the bowl of an old Indian pipe at 50 paces to give Pipe Springs and its century-old fort on the Arizona-Utah border its name. Milt Holt, like Gunlock Bill, is also something of a "tamer" of the Wild West. Holt maintains his own private zoo right in the middle of Gunlock—at present he has six full-grown mountain lions, a black bear and a bear cub in the menagerie, along with a pack of hunting dogs and horses.

Star of this wild animal troupe is Sheba, a year-old lioness who is as playful as a kitten—but packs the wallop of a prize-fighter. Holt takes Sheba along when he goes

hunting for jack rabbits, a mainstay of a mountain lion's diet. Sheba not only retrieves the rabbits, but will run down wounded jacks like a hunting dog does, says Holt.

Sheba's companion on these hunts is Stormy, a combination "black and tan" and "blue tick" hound. The lion was adopted by Holt when she was a cub, and Sheba, in turn, adopted Stormy who is one month her junior.

"The pair are inseparable," says Holt. "They eat together, play together and even sleep in the same pen." But on the trail, Stormy becomes a ferocious hunting dog. "He'll even climb a tree after a cornered lion," reports Holt. "That kind of dog doesn't last long."

In the wild ruggedly scenic slickrock country around Gunlock, both Holt and his lion are attuned to their surroundings. In mock "warfare" the pair will stalk one another until Sheba, tiring of the game, streaks for her "prey." These big cats, like any house cat, will purr when content and hiss when provoked—and when excited emit a shrill squeak nearly inaudible to the untrained ear, but a sound that the hunter recognizes.

Sheba, who has become something of a local celebrity, accompanies Holt on his periodic trips into St. George for provisions. The sight of a lion in the streets nearly always collects a crowd (a gross understatement). Once Holt and his pet created near pandemonium at the local courthouse when a woman employee spotted Sheba and went screaming through the building that a wild lion was on the loose. On another occasion Sheba realized a clear profit while "mooching" at a meat market counter. A customer dropped a dollar bill on the floor, and the lioness, mistaking the floating bill for another morsel of meat, slapped her paw down on it at the same time the man reached to pick it up.

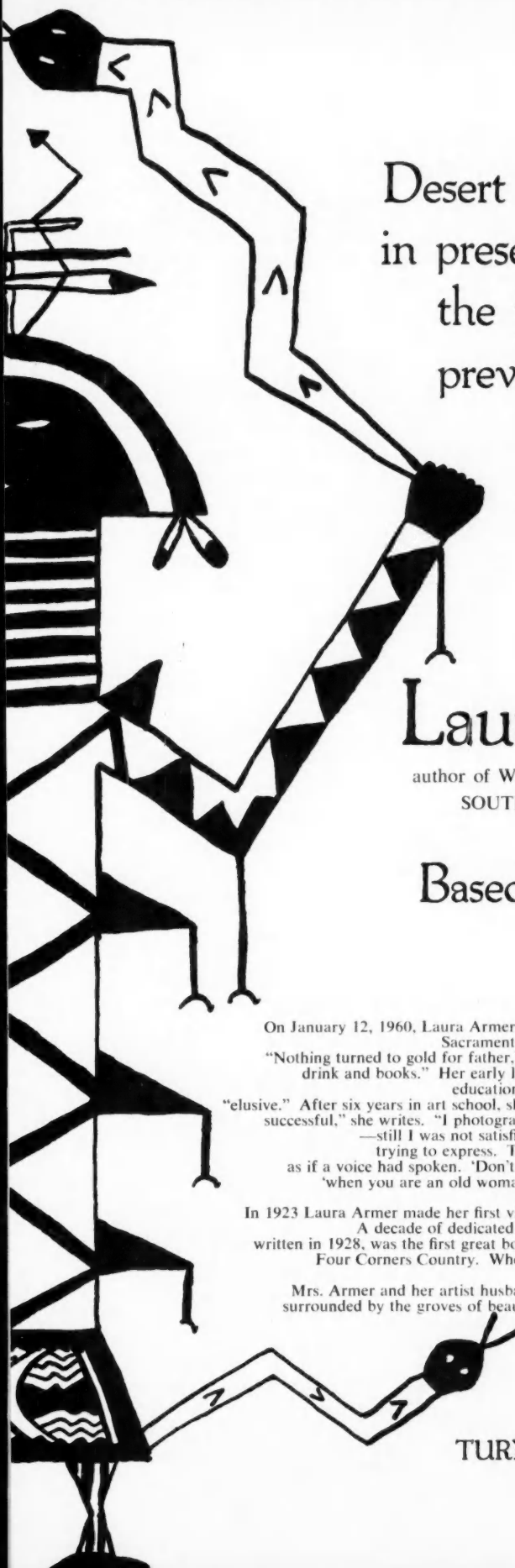
"That fellow nearly went through the ceiling," recalls Holt. Before beating a hasty retreat, the unnerved man told Sheba to keep the money.

The capture of Sheba's mother and her two cubs was a comedy of errors that Holt relates in an off-hand manner. It seems the lion was cornered in a cave by the unsuspecting hunter who thought he only had the cubs. Holt fashioned a noose on the end of a long stick and crawled in after the "cubs." The instant he realized his mistake, he flipped the rope over the big lion's head and then backed out of the narrow crevice at full speed. The lion charged, and Holt, still holding on to the other end of the rope, headed through the thick junipers at top speed. Luckily, a tree branch snarled the rope, throwing the lion to the ground.

"I went back the next day to retrieve the cubs," related Holt. "I needed one day to get back my breath."—END



HOLT HOLDS A BLACK BEAR CUB. THESE ANIMALS ARE DIFFICULT TO KEEP IN CAPTIVITY.



Desert Magazine takes pride
in presenting to its readers
the first in a series of
previously unpublished articles
by one of America's most
distinguished-- and sensitive--
authorities on the culture
of the Navajos:

Laura Adams Armer

author of *WATERLESS MOUNTAIN*, *DARK CIRCLE OF BRANCHES*,
SOUTHWEST, *CACTUS*, and *THE TRADER'S CHILDREN*

Based on her 1923-31 experiences
in Navajoland

On January 12, 1960, Laura Armer entered her 87th year. She was born in Sacramento, Calif., the youngest of three children. "Nothing turned to gold for father," she recalls, "but we did have food and drink and books." Her early life in San Francisco centered around an education in art—but the beauty around her was "elusive." After six years in art school, she opened a photography studio. "I was successful," she writes. "I photographed celebrities from all over the world—still I was not satisfied with my medium or with what I was trying to express. Then one day I received an inspiration—as if a voice had spoken. 'Don't worry,' I found myself saying out loud, 'when you are an old woman you will write what you fail to paint.' So I began life over."

In 1923 Laura Armer made her first visit to Navajoland (see following page).

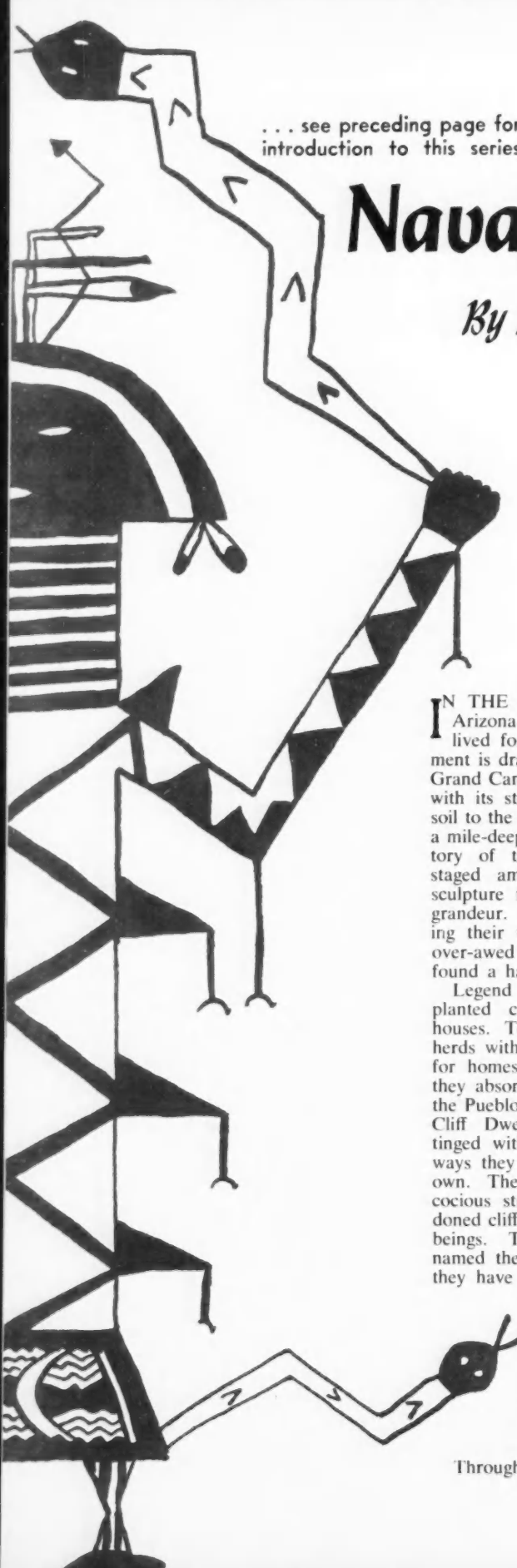
A decade of dedicated work followed. "Waterless Mountain," written in 1928, was the first great book to come from her experiences in the Four Corners Country. When it was awarded the Newberry Medal, the prophesy was fulfilled.

Mrs. Armer and her artist husband, Sidney, are "spending our last days surrounded by the groves of beautiful redwoods in northern California."



RECENT PHOTO OF LAURA ARMER

TURN PAGE FOR "NAVAJOLAND IN 1923" ►



... see preceding page for
introduction to this series

Navajoland In 1923

By Laura Adams Armer

THE author-to-be of "Waterless Mountain" makes her first trip to Navajoland and meets the "shy denizens of the desert" in the harsh beauty of their arid empire . . . Despite the relative recentness of this first contact with the Navajos, it might well have taken place five centuries earlier, for by 1923 there had been but little contact between these tribesmen and whitemen . . .

IN THE ARID region of Northern Arizona, the Navajo Indians have lived for centuries. Their environment is dramatic in the extreme. The Grand Canyon of the Colorado River, with its strata showing from the top soil to the bedrock of granite, presents a mile-deep record of the physical history of the earth. Human drama staged amid such stupendous land sculpture naturally is affected by its grandeur. The early Navajos, fighting their way from the north, were over-awed by this land in which they found a haven.

Legend tells that at one time they planted crops and lived in stone houses. Today the Navajos are shepherds with small log and dirt hogans for homes. During their wanderings they absorbed some of the culture of the Pueblo people descended from the Cliff Dwellers. Navajo myths are tinged with Pueblo coloring, but always they retain a character of their own. The imagination of these precocious stragglers peopled the abandoned cliff dwellings with supernatural beings. The San Juan River they named the Old Age River, of which they have never ceased to sing:

*"That flowing water!
That flowing water!
My mind wanders across it.
That broad water!
That broad water!
My mind wanders across it.
That old age water!
That flowing water!
My mind wanders across it."*

Through the years the Navajos

roamed the mountains, hunting and gathering seeds, learning to respect the thunder and the rattlesnakes. They made songs as they traveled. These are sung inside the medicine lodge in winter when the thunder and the snakes are asleep. They are part of the healing ceremonies. Medicine men memorize but do not understand these archaic words. They chant and shake their rattles in great earnestness, convinced that the songs of their uncles have power to heal. With the songs, the sandpaintings are made. The two are inseparable.

Paintings in dry color on the floor of the medicine lodge illustrate the myths. In them live historic episodes, poetic conceptions and symbolic designs. They are not emotionally conceived expressions of any individual. They are traditional tribal symbols that must not deviate from the prescribed pattern. Only in the decorations of the skirts and tobacco pouches of the gods may the pourer of sand express his personality in patterns of stars, crosses, triangles, feathers or whatever his fancy dictates. The Navajos do not think in aesthetic terms when making a sandpainting. Power lies in symbolic verity. The pourers of sand do not doubt that deity is portrayed in manifold phases, nor do the many men, women and children doubt as they come riding from far canyons, some in old wagons drawn by decrepit horses, many on horseback and a few in wheezing Fords. They come riding to hear the songs, to gossip, to meet old friends and to revel in the stories

of ancient times when their forefathers dwelt near the Old Age River.

It was Washington Matthews who first recorded some of the sandpaintings and songs of the Navajos in 1885. These were published in an Ethnological Report. In 1887, the Ameri-

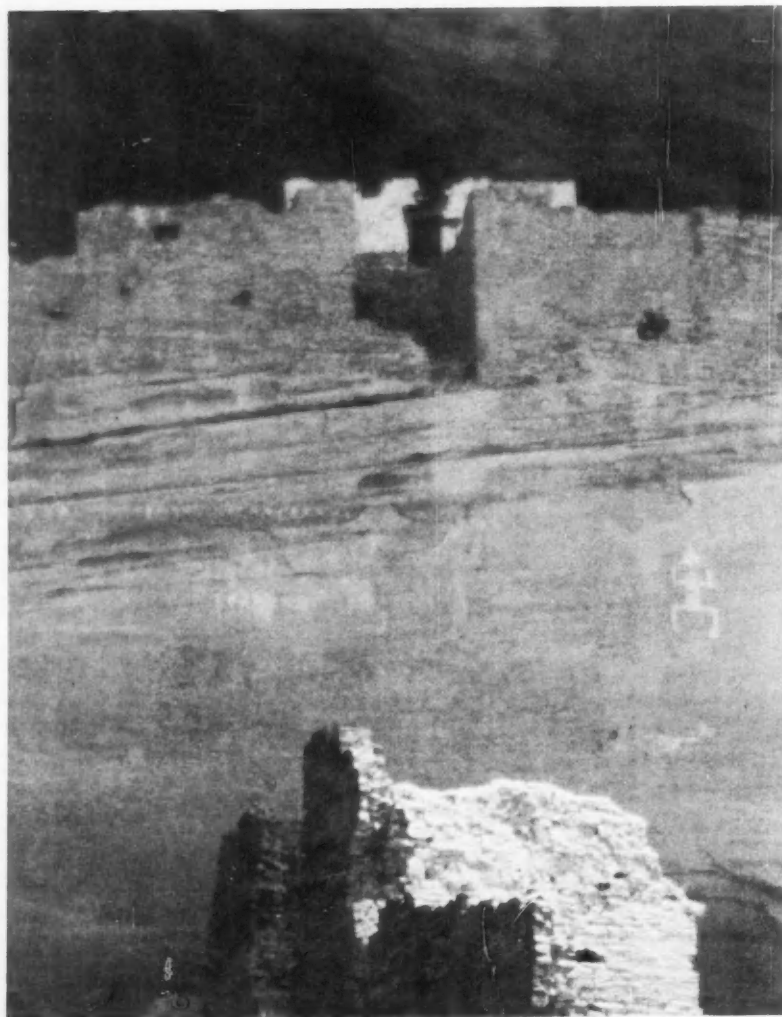
can Folklore Society brought out his *Navajo Legends*, a precious volume of understanding of the tribal life of a virile people. He was the first scholar to become aware of the poetry of the Navajos. It is to him that I owe the inspiration that sent me among them;

to him and to the Franciscan Fathers of St. Michaels, Arizona, who published *An Ethnologic Dictionary of the Navajo Language*.

I went first as a painter, trying to express the inner-longing for the intangible in a land that is cruel and



LAURA ARMER WAS ALREADY WELL-KNOWN FOR HER WORK IN PHOTOGRAPHY WHEN SHE WENT TO NAVAJOLAND. THIS PENETRATING STUDY SHE TITLED, "FOUR GENERATIONS."



"HOUSE OF DAWN AND OF EVENING TWILIGHT"

impersonal. As the years passed, I found myself studying folklore and religious ritual of sandpainting. It is necessary to tell how physically difficult it was to enter the Navajo domain. Only through the kindness extended by various white traders was I enabled to work. They helped me in a part of my own country where it was imperative to obtain a permit from the United States government, allowing me to live on an Indian Reservation.

Among the Navajo songs translated by Washington Matthews was one of Dawn Boy telling of a Child of the White Corn wandering in the house of happiness, in the house of long life, with beauty all around him. It was the song of Dawn Boy that decided the route of our vacation in June, 1923. We left Berkeley in a Buick touring car, Sidney and I, our twenty-year-old son, Austin, and Paul Louis Faye, a friend who had lived among the Nav-

ajos studying their language and customs. We were prepared to camp-out in a dry country. The running-board of the car held canteens of water and a lunch box. A trunk on the rear stowed a gasoline camp-stove with pots and pans. Sleeping-bags and ethnological reports filled half of the back seat. Cameras and canned goods reposed at our feet. The baggage was not a complete index of our activities, as paints and brushes were left at home and in my husband's San Francisco studio of commercial art. Luggage all around us, with it we wandered. Austin drove the car, achieving Grand Canyon which we left without taking one snapshot, proving proper restraint and reverence in the presence of majesty.

On a short side-trip from the Canyon we met Navajos repairing the road. They were tall men with long black hair knotted at the backs of

their heads. All wore turquoise earrings dangling from pieces of string which went through holes in the ear lobes. The turquoise was cut in triangular form with rounded corners and sides. The blue gems glowing against brown skin spoke of romance of the Southwest, recalling old tales of Spanish conquistadores who, seeking gold, found turquoise; told of Montezuma in regal splendor of turquoise; told of secret desert mines where the life-giving stone awaited the primitive miner. As the song of Dawn Boy had brought yearning to me, so did the turquoise earrings. I asked Mr. Faye if it would be possible to buy a pair of the earrings, if so what should I pay?

"If they are heart's desire, pay what equals heart's desire."

The bedecked Indians could speak no English. They were about to return to their camp for the noon meal. We went with them. Their women were roasting mutton ribs and frying bread in a Dutch oven of sizzling fat. We silently held their proffered hands. We did not shake hands, just clasped. No word was spoken. After a long silence I asked what to do next.

"Offer the price of heart's desire," said Mr. Faye.

I took from my purse a five-dollar bill, held it toward a shy denizen of the desert and pointed to his greenish-blue earrings. From the alacrity with which he removed the pendants and grasped the five dollars, it was evident the price was sufficient. Thus began the turquoise trail which was to lead to the house of happiness among the cliffs.

At Flagstaff, where we were to leave the highway and plunge into *terra incognita*, Mr. Faye gave us explicit directions as to behavior among the Navajos for whom he had conceived a wholesome respect. I was advised not to wear knickers but to don a skirt for the approval of modest Indians. I complied, adding whatever touch of femininity I could muster from my suitcase. Filling our canteens with pure mountain water, we started north. Mile after mile we rode over a land without perceived beginning or ending; a land indifferent to humanity or to anything less magnificent than the sky above. Flat places lay dazzling in sunshine. Rocks pointed prophetically upward. Placidly the waterholes mirrored the sky, into whose blue merged the snowy peaks of the western mountain. Dust in the distance indicating a flock of sheep bore a sense of human insignificance. It was powerfully lonely.

We reached Red Lake Trading Post set upon a rise of ground in the midst

of sand. Made of stone, and octagonal in shape, the building suggested a frontier fort, especially as the windows were barred with iron. Inside the forbidding walls we met Trader O'Farrell. Groups of Indians bartering woolen rugs for flour and sugar, leaned leisurely upon high counters. We liked the rugs. We liked the odor of smoke and mutton woven into them along with zigzag patterns of white, black and gray. Barbaric silver jewelry set with turquoise dazzled us by its profusion. We learned that it was pawned wealth to be redeemed by the Indians when money was not needed for sodapop or canned tomatoes. Some of the pieces were for sale. Holding a string of turquoise and white shell in my hands, I forgot that I should be preparing the noon meal. Later, while I opened cans of food outside the store and tried to shelter my cooking from the whirling sand, Mr. Faye presented me with an antique silver bracelet set with one blue stone. I placed it upon my right wrist and continued to stir the soup.

Among juniper-dotted hills we met a woman on horseback. Sure and strong, with calico skirt flapping about her moccasined feet, the desert beauty passed, smiling a welcome to Navajo-

land. Austin slowed the car that we might watch the personification of all that was lovely in the midst of austerity. An apple-green plush jacket served as background for masses of turquoise and coral beads. The rider disappeared among the junipers which seemed to bow in obeisance to her beauty.

At the top of Marsh Pass we camped for the night. Distant mesas broke into terraced cliffs whose rocks rose from the banks of a winding river far below us.

It was good to awake to a world of turquoise sky. Every breath of air added zest to existence. Mr. Faye smiled, Austin laughed uproariously at some joke of his father's, a blue jay screamed in appreciation, and the coffee bubbled over. Full of the joy of the morning, down to Wetherill's Post we wandered. It was the Wetherill family that had discovered the ruins of Mesa Verde, in Colorado. We talked of a possible route to the National Park, and were told that Mr. Wetherill was driving cross-country in the afternoon to some point in that direction.

No automobile had been over the route he intended to travel!



NEVY SMITH, TRADER AT SUNRISE POST, 1923

Next morning we filled the car with gasoline, piled an extra 10-gallon can among the ethnological reports and followed Mr. Wetherill's trail across the desert.

At Mesa Verde, high in the cliffs, rest ancient rock homes, long since abandoned by the builders. Visitors wonder why human beings sought shel-

Continued on page 34



"WHEN WINTER COMES, THE THUNDER AND THE SNAKES ARE ASLEEP"

NATURAL ICE FACTORIES ON THE DESERTS OF IRAN

By
WILLIAM E. WARNE

This is the second in a series of articles by Mr. Warne based on his observations in Iran during his work there as Point 4 Administrator. "The Ghanat" (horizontal well of Persian antiquity) appeared in Desert Magazine's February issue.

POMEGRANATE JUICE, chilled with ice, is a favorite summer drink in Iran. Anyone who tries it in the noonday heat, hot as only a dry desert country can be, will readily appreciate the tastes that from ancient times have made this drink popular. Cold pomegranate juice titillates the taste buds, soothes the throat and quenches thirst.

But, where do the people get the ice to frost their drinks?

Only in a few cities is there power service that could operate electric refrigerators, and even in these places refrigerators are rarities, seldom found outside the houses of foreigners in residence there.

But here in Ghezvin, or there in Dastgard, the hand of welcome extended an ice cold drink.

"It is the custom," the host explains. "In summer our people have always welcomed their guests this way."

Where I was born, on the banks of the Tippecanoe River north of the battleground in Indiana, ice froze in winter to a thickness sufficient so that it could be sawed in blocks and snaked off the river to be stored in sawdust in a cellar. My father had such an operation in connection with an ice cream factory that he ran. In the first grade this gave me great prestige. But we left Indiana when I was so young I scarcely trust my memory concerning any details. We moved to the Colorado Desert of California, albeit the irrigated portion thereof, and I began at once to gain the experience that made it seem so wonderful to have iced drinks in summer in Iran. That Middle East country seemed in 1951 more primitive so far as facilities for living were concerned than the Imperial Valley was in 1914 when I first saw it.

The only cooling agent in general use at that time in the Imperial Valley was an *olla*, hung in the shade outdoors and jacketed thickly with burlap sacking. By keeping the sacking moist (which could be done by pouring a tin dipper of water around its top and letting it soak down) the water in the earthen jar was kept cool by evaporation. These *ollas* were of a capacity of about five gallons and were of relatively porous clay baked red. There was enough natural seepage through the jar when it was full to provide a moist appearance part way up the side. The wet sack intensified the cooling process.

The *olla* had a broad flange 10 inches or a foot across at the neck, and the great jar was suspended by a wire tightened under this flange. Usually the wire connected in four strands, with a hook in a rafter. The circle of wire at the neck made it easy to fashion a hook on which to hang the tin dipper. Usually the *olla* was covered with a wooden lid and often a chair stood beside it so that a child might climb up, stand on his tiptoes and dip himself a drink.

Technological improvement comes rapidly in America, however, and very soon in our valley some inventor introduced an *olla* with a push-button spigot near the bottom. All the jars began to have a standard symmetry and uniform appearance that spoke of mass production—and some of the flavor went out of our pioneer life. Even so, we had no ice. That did not come until later when trucks began to traverse routes along our dirt roads collecting cream for the cooperative creamery in Holtville. The milk truck brought ice from town and we put it down in a big insulated box. Butter could be set on the dwindling cake and, though it sometimes got a little moist looking, it would keep its shape. That was real progress, but, of course, we paid for it. The irrigation water had to be watched more closely, for if the road flooded the milk truck could not get through. If it got stuck, there was Old Ned to pay. The engine would roar and the wheels would spin and literally plaster mud over everyone trying to help. The



 ICE THESE MEN CHIP FROM TROUGH IS
CHUTED TO UNDERGROUND STORAGE FACILITY

milk truck would dig itself in so deeply that even Big'un and Beaut, when they were finally hitched on, would have great difficulty pulling it out, and as likely as not would get to jumping in the harness and break the doubletree.

There were no trucks serving routes and collecting cream in the Iranian countryside. Ice could not be carried that way. But here was ice, and on further observation and deeper understanding here were other trimmings produced in a subsistence economy in response to sophisticated demand. Great ingenuity had been brought to bear in order to satisfy these needs.

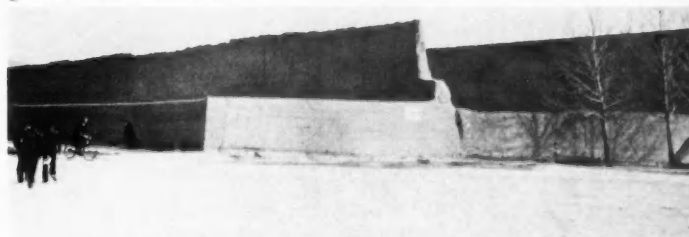
The inventiveness of the people is well illustrated by the ice factories on the Persian desert. In their design and in the process of making and keeping ice, they employ many technologies. I found no one who could say when these plants were first used. The literature would indicate that the Persians had ice throughout history, so it is probable that similar ice plants have come down from olden times.

The weather in winter on the Iranian plateau, which averages about 4000 feet in elevation, is cold at night and clear and bright during most days. The direct sun is hot on any day. It may snow during rare storms, but the snow melts off quickly once the sun comes out. On the north side of walls, snow may lie for some time. Since all houses and gardens are surrounded by walls, in winter most gardens will have a crust of dirty snow bordering the north wall. Flowers may be blooming on the opposite side where the sun beats down. Perhaps observing some duplication of this phenomenon, the inventor of the natural ice factory simply designed a mud wall of sufficient height and running in precisely the right direction so that it is at all times shaded on the north side. At the base of this wall is a strip of ground of sufficient width to provide an efficient freezing vat, usually 10 or 12 feet wide and as long as the wall—150 feet or more. This strip is excavated to a depth of about a foot and then flooded with water from an irrigation ditch or a ghanat (horizontal well, *Desert*, Feb. '60). For several months in the winter, ice can be frozen in this outdoor vat, and blocks of a thickness of from four to eight inches repeatedly sawed from it. These are floated to a conveniently-placed portal and chuted to an underground pit to be stored until summer. I have seen pits being served by a series of three or four of these vats that could store hundreds of tons of ice, and, indeed, had such quantities in them near the close of the freezing season.

Sawdust is not readily available in Iran and the blocks cannot be kept separated in storage. They tend to freeze together and form one great chunk of ice in the pit of the ice house. This means that the ice vendors who peddle their goods from donkeyback up and down the alleys of the cities, calling their commercials in quavering high-pitched sing-song, do not have nice square blocks to sell. The stuff they get at the pit is unevenly broken in odd and grotesque shapes. Sometimes the donkeys have an unbalanced load and develop a list. In hot weather I suspect the patient animal enjoys carrying ice, for some of it is sure to melt and soak through the blanket under the saddlebags and even send cool little rivulets down his legs.

Teheran is a great city, with more than 1,500,000 population. It has a central station power system and several modern ice plants, usually producing long sticks of ice shaped like hollow fence posts. Still there are scores of natural ice factories operating there. South of the city is a wide area where these ice house walls are the most prominent features of the landscape. They appear on every hand. Such ice houses are seen in many places on the plateau.

Today's tourists marvel that George Washington had an ice house facing the Potomac River, thinking it wondrous that the "modern age" has so deep a root in the past. There was ice for Mount Vernon when the river at the foot of the hill was frozen, though I suspect there were some years when the ice there scarcely got thick enough to cut. The Persians, having no rivers on the arid plateau to freeze, developed a means of providing themselves with ice centuries before George Washington enjoyed his first glass of iced tea.—END



LONG WALLS OF AN ICE FACTORY NEAR TEHERAN

A BARBECUE and chicken place near the desert community of Cathedral City, California, urges its customers to: "Use your fingers—Emily Post never comes here anyway."

Perhaps the statement is true—but that doesn't mean Emily Post is unfamiliar with the desert country of the Southwest. In fact, some of her pretiquette writing is about the Great American Desert.

Emily Post traveled by "motor-car" through parts of the Southwest in 1915—when going long—or even short—distances in an automobile was an adventure. She told about her Southwestern trip in a book, *By Motor to the Golden Gate*, published by D. Appleton and Company the following year—long before Emily Post's name became synonymous with good manners.

It all began on a Thursday in April, 1915, when Emily Post was in her servant-attended home in New York City with her son, E. M. Post, Jr., a student at Harvard. They were reminiscing over various trips Mrs. Post had made by "motor-car" in Europe since 1898—and how their own land

was an unopened book except from the windows of a Pullman car.

On the spur of the moment, Post, mother and son, decided to "open the book" by driving to San Francisco via Chicago, south into Las Vegas, New Mexico, across the desert to Southern California and then north to the Golden Gate. That Saturday they were on their way, accompanied by a friend, Celia, who insisted on wedging herself in amongst the bulging baggage in the back seat.

By the time the adventurers reached Las Vegas, New Mexico, they realized that their choice of an auto had been a bad one. The vehicle, a heavy "foreign make" job with but eight inches of road clearance, was not meant for the deep-rutted roads of the Southwest. Because of the car's low clearance, E. M. spent a good deal of his time shoveling earth and stones into the road ruts so the car's underside could clear the high center humps.

One thing in their favor was the car's tremendous gasoline tank. It held 35 gallons or enough for 350 miles of travel—10 miles to the gallon.

Emily Post described the 73-miles

between Las Vegas and Santa Fe—a lap that took nearly six hours to negotiate—in these words:

"Washed-out roads, arroyos, rocky stretches, and nubby hills. We just about smashed everything, cracked and broke the exhaust, lost bolts and screws, and scraped along on the pan all of the way."

After stopping at the Harvey Hotel in Santa Fe, the travelers went on to Albuquerque, a distance of 63 miles. It was an easy drive over a smooth road, attested to by the fact that it took "less than three hours." This was remarkably fast speed in those days.

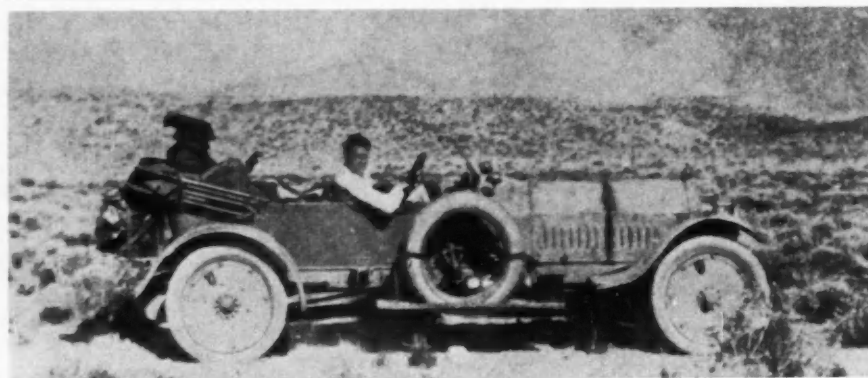
In 1915 the Indians at Albuquerque were already tourist-wise. The noble Red brothers allowed their pictures to be taken by the visitors for the standard price of a quarter. Emily Post arranged with an Indian father and mother to take a picture of their baby tied to a swaddling board—and trouble followed:

"The shutter of my camera had to be set first and then released which made two clicks. When I paid the regulation quarter, he was furious and

EMILY POST'S GRAND

Before she gained fame as an authority on etiquette, Emily Post was a "travel writer."

In 1915 she made a trip by car "to the Golden Gate" via the desert, a memorable motor tour over rough Southwestern trails . . .



Emily Post titled this photo: "Across the real desert."

Mrs. Post is in the rear seat. Her son, E. M. Post, Jr., is at the wheel.

By WELDON D. WOODSON

demanding double pay. I, on my side, thought I was being imposed upon as he had himself volunteered to hold the baby for me for twenty-five cents. E. M., who divined the difficulty, quickly took the film pack out, and holding it open against the light, explained to the Indian carefully, 'Little click no picture.' And the Navajo, being quite satisfied with the quarter, I then gave him the second one—a senseless, but commonplace proceeding."

From Albuquerque, the battered New Yorkers aimed their battered car in the direction of Gallup. They could have stayed for the night at a small frame hotel of the "frontier type of building," but preferred to sleep under the stars. It would not be on the ground, however, for Emily Post reported having an "abject terror" of snakes, although she granted that there were very likely none within a hundred miles. Bundled up in fur coats and steamer blankets over them, they slept in the seats of their car, which were as comfortable as an upholstered steamer chair with the footrest up.

For Emily Post's part, the night was

too beautiful out under the "star-hung sky" to willingly shut her eyes and blot it out. "Overhead was the wide inverted bowl of purple blue made of an immensity of blues overlaid with blues that went through and through forever, studded with its myriad blinking lamps lit suddenly all together, and so close I felt that I could almost reach them with my hand."

The next morning, she and Celia tried to find a stream in which to wash their faces. "But, failing in our search, we shared the water in our African bags with the radiator. The hot water in the thermos bottle poured over George Washington coffee did not delay us a moment in our breakfast-making, and it could not have been later than five o'clock when we were well off on our way."

They headed for Winslow across the state line in Arizona—a stretch of desert rarely traversed by auto. Even so, the motorists felt adequately equipped for the journey. Emily Post explained:

"Without doubt we can get motor supplies somewhere, but that is the one risk E. M. refuses to take and so

we are starting off like a young Standard Oil agency, with 45 gallons of gasoline, 35 in the tank and 10 extra in cans. Also extra cans of oil. We have plenty of water for ourselves and some, too, for the car although we doubt whether alkali which ties the human stomach into a hard knot of agony at a taste would give the radiator a pain."

That day they lost their way several times and saw no persons other than occasional Navajos on the "Reservation." They finally reached Holbrook, then drove without any adventures over a "traveled road" to Winslow.

Beyond lay the Painted Desert, the high country of Flagstaff, the miles upon miles of sand of the California deserts. The Posts took one look at their grand touring car and ordered it freighted by rail to Los Angeles. They themselves booked passage on the train and viewed the remainder of the Southwest through a Pullman car window. It would be best to leave a part of America's Great Desert for future motorized explorers to discover. That, after all, would be the courteous thing to do.—END

TOUR OF THE DESERT



"Sometimes we struck a bad road" is the caption Emily Post gave to this picture.

THE MIRACLE OF

AN EMINENT NATURALIST EXAMINES ONE OF NATURE'S MOST DELIGHTFUL WONDERS—SPRING WILDFLOWERS ON THE DESERT . . .

By Edmund C. Jaeger

DESERTS THE world over have a peculiar way of bringing surprises to us through their sporadic way of producing a sudden and amazing abundance of choicest colorful wildflowers after often long periods of drouth and barrenness. The casual desert visitor seeing the usual dearth of greenery on the enormous stretches of land mantled only with gray brush and stones, sand and gravel is certain to wonder as to what strange combination of mysterious forces and events brings about the sudden reversal.

Chief factors limiting or encouraging growth of both desert plants and animals are heat and the unpredictable seasonal rains. If these rains are spaced correctly, i.e., come just at the right time, if they are not too light or not too heavy, a good wildflower year is inevitable. The relationships are indeed very critical, the possible complications involved unusual.

When "spring" (January, February, March and April) and summer come on the North American deserts, there are two kinds of plants with showy flowers: the ephemeral annuals and the perennial hardy shrubs and trees. The annuals are the ones most people think of as wildflowers. They grow, bloom and produce seed in a few weeks then almost suddenly die at the end of the season of rains. Most of them are very heavy seed producers and it is in the dormant seed state that they hold over, sometimes from one to several or even many years, until the next favorable rains come. Thus they avoid drouth instead of withstanding it.

Extensive seed germination takes place only when the first rains penetrate several inches of soil. The young plants may then suddenly appear in

such numbers and be so close together that they form a veritable green "felt" on the surface of the sands. If no further good rains come, these seedlings still survive a short while and rush at ridiculously fast pace to a state of dwarf maturity. What small bits of water they have they determine to utilize to the maximum. They may have only a leaf or two, produce only a few flowers and seeds, then wither and die.

Seeds of many of the wildflowers produce growth-inhibiting substances on their surfaces. If the rains are meager, these substances are not removed and the seeds will not sprout. It is a very wise provision Nature has made for saving her seeds until there is really a chance that her plant children may grow and produce more seeds.

There are also growth-promoting substances made by the seed. If rains are too heavy, as in a cloudburst, these growth-inducing substances are removed, and again no germination takes place. Nature wants things just right or she will not cooperate to produce flowers.

Pectis papposa (there is no English name for it) is a pungent turpentine-odored low-spreading annual appearing from June to August after summer rains. In the eastern Mojave Desert and in southern Arizona I often see it making conspicuous broad carpets of yellow in an otherwise barren desert. It seems to thrive with the very minimum of rain. Dr. F. W. Went reports that the seeds of *Pectis* very rapidly produce inhibitors that prevent it from growing in winter no matter how great the rainfall. In the high temperatures of summer the rate of germination so far exceeds the formation-rate of inhibitors that the young plants appear.

Many of the winter and spring annuals suddenly appear while the nights are still quite cold. These flowers grow very slowly until the warm days and nights appear. Then they rush to maturity in a matter of a few weeks. On the Colorado and Yuman deserts the

wildflower season may be at its height as early as late February; on the higher Mojave Desert the flower season is a month to six weeks later.

Of the ephemeral wildflowers there are three kinds: the spring annuals, the summer annuals and those that appear at either season, asking only that there be sufficient moisture for their needs. To the last group belong the sand verbenas, Spanish needles (*Palafoxia*), spiderworts, low mat-like milky-juiced euphorbias known as rattlesnake weeds, and two species of Jimson weed. Most of the other wildflowers have seeds that germinate only at one season or the other. In south-central Arizona there are two very showy flower seasons, but even a superficial observer will discover that the plants which flower in the spring are quite different than those which appear in July and August during the season of summer rains. This is because the seeds' period of coming to maturity and the germination requirements of the two are totally different.

The fine gravelly or sandy soils generally produce the best crops of wildflowers for there the rains penetrate easily. Since sands and sandy loams are such common constituents of desert soils over widespread areas, especially in the broad valleys and basins, we see there those often enormous spreads of color for which deserts are famous. In the spring of 1957 I saw on the floor of scenic Panamint Valley an almost solid spectacular sheet of rich yellow some three to 10 miles wide and at least 15 miles long, all produced by the handsome sweet-smelling desert sunflower (*Garraea canescens*). How many tons of seeds were produced here is hard to estimate. Last year, with its shortage of rain, saw the same broad area wholly devoid of flowers—a barren waste.

Once I collected 20 pounds of soil from under a creosotebush. Using a fine-meshed screen and a binocular microscope I separated and counted more than 900 seeds. I am certain there are places where I could have

The past winter's rains have been generous and hopes are high for an outstanding wildflower display this spring. For a report on the most promising locales to visit on the California deserts, see page 35.

WILDFLOWERS

found even more. No wonder the small seed-eating birds always find enough food among the sand grains to sustain them even in leanest drouth years. Most of the seeds are exceedingly small, and ordinarily only the keen eye of a bird can sight them.

Dunes of considerable height (200-300 feet) and extent are often barren at their tops of wildflowers while at their bases and on the flats around them are abundant flowers. Although there is a plentiful supply of moisture in the sands of dune tops, few seeds are deposited there because of exposure to strong winds which keep the surface sands almost constantly in motion. Moreover, conditions are not favorable on dune tops for the growth of microorganisms such as bacteria algae and fungi on which plant growth is so much dependent. At the dune borders the winds are less active, more seeds accumulate and there is nitrogen-bearing humus and a supply of microorganisms. Much of the humus comes from root decay and wind-buried leaves.

One of the rankest-growing dune-edging plants is the dune evening primrose (*Oenothera deltoides*) with its big white wine-odored flowers. I have seen such a marginal belt of primroses stretching for miles along the Kelso Dunes of the eastern Mojave Desert. Plants which flourish in or about dunes are called *thinophytes* (dune plants), a Greek-derived word.

If deep ground water and surface water from rains are available, certain of the desert shrubs and trees establish themselves, especially if the hard coats of their seeds have been made thin by etching action of wind-blown sand or sand rolled against them by running water from cloudbursts. Once established, many of the larger woody plants go very deep for year-round dependable sources of water. In the deserts of India a kind of mesquite (*Prosopis spicigera*) is known to have roots which go down 85 feet! This tree is most important to the natives who use its leaves and shoots for livestock fodder; it is also the people's main source of fuel. Our own mes-

quites may go 60 feet for water; our creosotebush, 30 feet.

There are on our desert several places where seeds will not germinate because of the alkalinity and high salt content of the soil. On the borders of saline dry lakes there are always a few plants with highly specialized roots that extract water sufficient for growth. Such salt-tolerant plants, called *halophytes*, form zones of green around these dry lakes. Examples are ink weed (*Sueda*) and Allenrolfia, with their salty saps, and the salt cedars (*Tamarix*) which may have their twigs covered with saline efflorescence. Of the salt-tolerant plants only the salt cedars have colorful flowers. When found in masses these trees can put on a spectacular show of late spring blossoms.

In the Arctic the predominant flower colors are blue and white, but in warmer lands darker colors are more common. On deserts various shades of yellow and white prevail; reds and pinks are plentiful as well as purples, especially in such flowers as the phacelias. Shades of blue, especially the dark blues, and blue-pinks, are not lacking as demonstrated in the great fields of lupines and gillias that sometimes cover acres and acres with solid color. The most successful producers of mass yellow are members of the sunflower family (*Compositae*). These sunny-faced flowers, especially the annual ones, are prone to grow in well-drained sandy and gravelly areas; the shrubby species such as the brittlebushes are dominantly hillside and wash-edge dwellers.—END



GHOST-FLOWER



THE PACK TRAIN ROUNDS A HIGH POINT ABOVE GREEN RIVER

First Pack Train Over the Tavaputs

... by
*Nell
Murbarger*

AS OUR dusty cavalcade moved slowly down-trail, I think we felt a little above the cut of common mortals. Since leaving Thompson, Utah, eight days earlier, we had climbed the rugged Book Cliffs, crossed the East Tavaputs Plateau, and followed the Green River nearly 40 miles through Desolation and Gray canyons—the first crossing

of the Tavaputs by a pack outfit. We had looked upon thousands of acres of virgin timber, explored deep gorges, and photographed Indian paintings centuries old. In all those miles in the saddle we had not passed one occupied habitation, and but for members of our own party had not seen one human being.

Possibility of making a pack trip

through the Tavaputs first occurred to Everett Schumaker as he flew over that high forested wilderness. As co-owner and manager of the M4 Guest Ranch, 14 miles southeast of Moab, Ev is always on the lookout for interesting localities suitable for paid pack trips, and it seemed to him this lonely land might qualify. When he mentioned the matter around Moab, how-

ever, the reaction was generally unfavorable.

The Tavaputs, with no settlements of any sort—not a ranch, ranger station or emergency telephone in an area larger than some Eastern states—was simply too remote, too rugged and too dangerous for “dudes,” the old-timers argued. Only five men in the world were said to know the Plateau really well, and of these the best informed was possibly Budge Wilcox, semi-retired cattleman—and he had not been in the Tavaputs for nearly 20 years! Although Budge confirmed the fact that no pack outfit had ever crossed the Plateau, he didn’t see why it couldn’t be done—provided only experienced riders, able and willing to accept hard knocks and the possibility of long hours in the saddle, made the trip. When Ev said he could supply such a party, Budge Wilcox agreed to serve as guide. Late May was set as departure date. (To go earlier would be to risk deep snow on the 9000 and 10,000 foot passes, while later in the summer would bring soaring temperatures to the desert flats along Green River.)

On this pilot trip were “Pheme” Brownell of San Diego, vivacious veteran of many pack and jeep trips into the Utah wilds, and co-owner of the M4 ranch; Ethel Johnson of Poway, Calif., lifelong outdoor enthusiast; John Levering of Moab, world traveler and retired wool buyer; Guy Stocks, chief packer and horse wrangler; Budge Wilcox; Ev Schumaker; and myself.

All the near-trackless wilderness of northern Grand and southern Uintah counties lay ahead of us as our seven riding horses and five pack animals started up-trail—and weather was brewing!

Great white thunderheads, mounting toward the zenith since early morning, had merged in a gray wall behind which the sun had disappeared, and a chilling wind began tugging at the junipers and pinyons. Knowing that we were slated for a fight with the elements gave us a jaunty feeling, and even when raindrops began dancing on the leaves as our horses filed up the twisting creek bed we still regarded the incipient storm as something of a lark.

But the sprinkle soon turned to a cold gray penetrating drizzle, and when we had switchbacked steeply up the canyonside and topped out on a rocky hogback, we were not too surprised to find goose-feathery snowflakes filtering down through the trees.

The temperature fell to a biting cold. The size of the flakes diminished, their number increased, and the wind’s cry mounted to a high thin wail. With the dry snow flying into our eyes and nostrils we were half-frozen by two o’clock when Budge called a halt in a cove of young aspens standing in the lee of a rock ledge. The cliff provided enough protection for a fire, and soon a two-gallon pot of coffee was sending forth its matchless aroma.

Standing so close to the leaping flames that our wet garments steamed and sizzled, warmth at last penetrated even the cold numbness of our feet and fingers, and we drank great quantities of the scalding brew and discussed our best course of action. Budge thought we should ride off the trail about five miles to an old cow camp he remembered. The cabins there would provide needful shelter on the cold and stormy night in prospect. Soon as the coffeepot was drunk dry, we swung back into our saddles, lowered our heads to the wind, and set forth.

Property of Billy and Joyce Cunningham, whose home ranch is in the hills north of Cisco, the camp is occupied by its owners only a few weeks in each year while their livestock is on summer range. In keeping with range land custom, the unlocked buildings were completely furnished and well-stocked with food, and we made ourselves at home.

Daybreak found the camp-clearing white with hoarfrost and a thin glaze of ice edged the small bright stream nearby. But, the storm had died in the night, and the sky was wondrously big and blue.

Riding back up the trail, we saw that a little stream descended the

canyon through a series of beaver ponds, each as sparkling as a blue crystal bead. Although we saw no beavers, we jumped many deer and a band of four elk, and Budge called our attention to the freshly-made tracks of a mountainlion.

After climbing to the summit of a ridge, we dropped down through Steer Gulch, forded a shallow stream and angled up Corral Canyon, following another clear creek broken by cascading waterfalls. Hundreds of elk tracks were imprinted in the moist earth of its banks. Blanketing the canyon slopes were the tall white spars of quaking aspen and dark groves of spruce and Douglas firs. Water seeping from dwindling snowbanks cut tiny rivulets through the short green grass of spring, and the spongy black ground beneath gave promise of columbines and dogtooth violets in the short summer to follow.

Topping the range at 10,000 feet, we looked out over a breath-taking wilderness of forested canyons and ridges that plummeted from the spruce belt down through the pines, pinyons and junipers to the purple-and-magenta vastness of the Upper Colorado River desert. Probing through that immensity, I ranged my binoculars over the carved and colored world of Dead Horse Point, the Land of Standing Rocks, The Needles; and off to the southwest my eyes pried into the grimness and grandeur of the Robbers’ Roost Country and the San Rafael.

After dropping down to Pioche Springs where we cooked and ate our lunch, we climbed to another lofty summit, crossed a wide mesa, descended through Simmonds Draw, forded Hill Creek and were at the forks of Ute Canyon when Budge

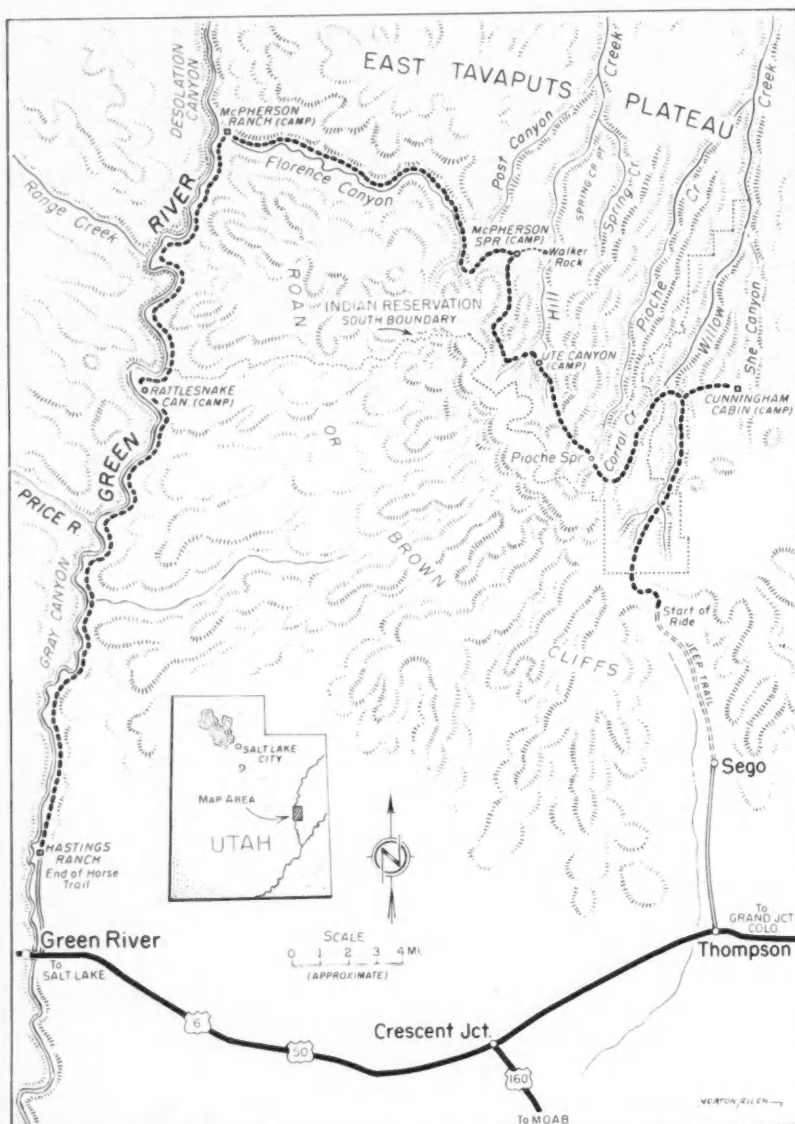
BUDGE WILCOX SERVES DUTCH-OVEN BISCUIT TO ETHEL JOHNSON AT THE CAMPSITE IN RATTLESNAKE CANYON



called a halt. We made camp in a natural clearing ringed by tall aspens and firs, with good grass for our animals, vast quantities of dry firewood, and a wonderful spring of water.

All we lacked was protection from the weather. At bedtime the sky was buried miles deep in murky gray clouds. There was nothing to do but unroll our sleeping bags, cover them with tarps and oilskin slickers—and hope for the best. Three times in the night I was awakened by rain pattering on my tarp—three times I cuddled-up a little cozier and went back to sleep. Morning found us all reasonably dry, in high spirits, and eager for the trail.

Following the right fork of Ute Canyon to the summit of Steer Ridge, we emerged into a cold and drafty world where the aspens grew dwarfed and twisted. Slipping, sliding and switchbacking, we descended a steep mountainside beyond, dipped through a wide valley, climbed to the summit of another ridge, and throughout the remainder of the morning rode over a flat forested plateau. Our next camp—McPherson Spring—was a pair of old log cabins of a deserted cow-camp. We were now in the country once ranged by the outlaws of Butch Cassi-



dy's "Wild Bunch." Budge took us on a side trip to the rock where Joe Walker and Joe Herron, outlaws, were slain by a posse in 1898. The sandstone face of the ledge was chipped away by some of the shots fired in the brief but bloody battle.

Next day we laid over—but, not from choice. Half our horses and mules had strayed from camp during the night and it took Budge and Guy until five o'clock that evening to bring them back. The weather was perfect and it was easy to put in time around camp. We found a few arrowheads—mostly broken. We took walks, wrote notes, investigated several pole bear-traps that hadn't been set for a quarter-

century. Ev and I took a short ride and counted 19 deer and five elk; Ethel and PHEME did some washing; John made a wonderful rice pudding big enough to feed a small army.

Morning dawned bright and clear and we were on the trail by 7:30. This was our last day in the high country, and soon after leaving camp we started down the steep north wall of Florence Canyon, dropping 2000 feet in elevation in a couple of miles. From an austere world of tall gloomy firs and aspens we descended rapidly through the Transition Life Zone of yellow pines and mountain mahogany to the scrub oak and chaparral of the Upper Sonoran Zone, and, finally, to the pleasant realm of maples, chokecherries, boxelders, elderberries and cottonwoods. We dismounted in a

◀ PHEME BROWNELL WITH BIG CHANNEL CATFISH SHE CAUGHT IN GREEN RIVER

grassy glade at the bottom of the canyon, congratulated each other on having made the hazardous descent safely—and began shedding coats and windbreakers. We had literally ridden downstairs to summer.

Three hours and several miles later, we spotted our first cliff dwelling. It was about 100 feet above the canyon floor just below the mouth of Pole Canyon, and though only a small ruin its roof timbers were still in place.

That afternoon we saw a dozen more cliff ruins—all on the north face of Florence Canyon. They appeared inaccessible, and probably never have been entered by white men.

By mid-afternoon we were terribly tired after fighting our way through the brush on the canyon floor. First it had been kingsize sagebrush towering higher than our heads; then came miles of scrub oak extending across the canyon floor from wall to wall.

At five o'clock Budge reported cheerfully that it was "only a couple of hours" to the mouth of Florence Canyon where we would camp for the night. *Hours*—not miles!

The scenery was as spectacular as we were weary. The canyon walls began to narrow and grow progressively more sheer. Scores of times the twisting gorge appeared to end only a few hundred yards ahead, but a sharp bend would reveal more canyon and trail. Stone pinnacles and promontories appeared on the rimrock. Great stone arches high on the skyline stood out in silhouette against the last bright glow of the dying day.

All that kept me in the saddle for those last six miles was a stubborn determination not to be the *first* to quit.

At eight o'clock we rounded the shoulder of a last rocky knoll and looked down upon the old log buildings and pole corrals of an abandoned ranch. Surrounding the buildings were a small meadow and an old orchard, bordered by the silvery-gray tide of the Green River. Beyond the river rose the towering west wall of Desolation Canyon.

On this ranch from 1887 to 1928 had lived Budge's father-in-law, Jim McPherson. In 1941 the government bought the place for inclusion in the Ute Indian Reservation.

It seemed to me I had scarcely closed my eyes when I was awakened at daybreak by the sharp ring of Budge's axe as it bit off chunks of dry wood for our breakfast fire. A mockingbird in the tree above my bed was singing like mad, and near the place where Ethel was sleeping a young cottontail rabbit was sitting on his haunches, taking in the scene.



ETHEL JOHNSON AND EV SCHUMAKER ON THE TRAIL

Wandering over the peaceful old ranch and seeing the evidence of a once-prosperous institution, I found it hard to believe that every pound of equipment, all the supplies and every piece of farm machinery brought to this place during its 54-year life, was freighted in on the backs of pack mules from the town of Green River, 40 miles south. A 400-pound cookstove, an organ, several mowing machines and a bullrake—all packed over a trail barely wide enough for an animal's footing.

During the last five miles of our ride through Florence Canyon we had noted many fine Indian pictographs and petroglyphs. But the day had been too far spent to permit their examination. We laid over a day at the ranch and Ev, Budge and I rode back up the canyon to inspect and photograph the ancient paintings.

At the base of a sheer sandstone cliff we found a veritable art gallery of unusual 'glyphs. One of the most notable pictured a warrior with wide shoulders and narrow waist, and a tall antler-like headdress. Farther up-canyon was a large showy pictograph similar in appearance to a bulls-eye target. The nine painted circles were alternately red and yellow, with one white band midway between center and rim. On the tip of a rock outcrop we found an excellent display of small incisions and large showy paintings. Done in black, white, red and yellow, they depicted antlered warriors up to three feet in height. Entirely different in character was a painting consisting of a red circle 24 inches in diameter.

On a bright yellow field was a thin 12-inch red crescent—a dying moon—and below, three sizable red dots.

Returning to camp in mid-afternoon, we found a string of fine catfish taken from the river by our companions. Largest of the lot—a blue channel cat weighing about five pounds—was proudly claimed by PHEME. While the others were fishing, John Levering had found a beautiful white quartz arrowhead, and every member of the party had enjoyed the day to the fullest.

With the catfish fried to a golden brown and served with crisp watercress gathered by Ethel, plus a steaming skillet of hashed-brown potatoes, a Dutch oven full of John's wonderful flaky biscuits and a jar of strawberry preserves, we sat down to a grand supper.

Early the next morning we took leave of the peaceful ranch and began making our way south along the Green River bank, through Desolation and Gray canyons. We were now in desert country, at an elevation of about 4000 feet, and for the first time on the trip we noticed the heat. Judging by the intensity of the sun beating down on the brown rocks and cliffs flanking the river, we knew that another month would bring days when the heat in these canyons would be almost beyond human endurance. Occasional clumps of cottonwoods afforded welcome shade for a trailside rest, and salt cedars formed a nar-

Continued on page 34



This gruesome fortress was the Alcatraz of its day. Now it's a popular tourist attraction.

By ETHEL and ORVILLE TAYLOR

HIGH ON the granite bluff known as Prison Hill, the crumbling ruin of the old Arizona Territorial Prison towers over the valley below. This grim fortress has seen the once-mighty Colorado dwindle to a passive stream; and the Army outpost of Fort Yuma develop into a bustling agricultural center, the Yuma of today.

Eighty-three years have passed since the cornerstone was laid on April 28, 1876, for this most notorious and hated prison. The first group of inmates numbered seven, but at one time there were 376 felons from all over the nation confined here, including four or five women. Captain F. S. Ingalls, a military man and former steamboat pilot, was the prison's first superintendent.

Built by Convicts

Ironically, most of the cells were dug out of the rocky hill by the hapless convicts who were to occupy them. The walls were plastered over with adobe mud and some of the exterior walls were made of adobe blocks. There were 34 compartments in the main cell block—each fashioned for six prisoners. Bunks were in tiers of three to conserve space. The average size of these cells was six by 10 feet. The walls were reinforced with iron strips, and a metal grating was cemented into the dome ceiling for ventilation.

Incorrigibles were kept in another block containing 12 cages. On the wall of one of these is scrawled the words "human liberty." Victims of tuberculosis were isolated in a row of cave-like cells on the sunny side of the hill. An unknown prisoner in

Cell 5 of this block passed down this poem:

Have you had a kindness shown?

Pass it on.

'Twas not yours, for you alone.

Pass it on.

Let it travel down the years.

Let it wipe another's tears,

'Til in Heaven the deed appears.

Pass it on.

The infamous dungeon block contained "Snake Den," a cave 15 feet square by 10 feet high hollowed out of the heated hill. The more vicious criminals were confined here, and to prevent fighting amongst them, they were chained by the leg to iron rings imbedded in the floor. Many men spent months in this dark hole, sleeping on the rocky floor and existing on bread and water. Only death ended this ordeal for some.

Even those fortunate enough to keep out of the Snake Den had no easy life. There were few provisions for comfort. The dugouts were cold in winter, unbearably hot in summer. Scorpions found the rough adobe walls to their liking.

Locked up at Night

The men were locked in their cells at night, but moved freely around the grounds during the day. When their work details were finished, they were allowed to spend some time in the exercise yard. From here the cool inviting Colorado was plainly visible—as was the prison cemetery with its rocky mounds.

Some of the most desperate outlaws of the old West were incarcerated at Yuma, for this was the Alcatraz of that era. Bill Downey, Bert Alvord

and Finn Clanton (brother of Ike Clanton of Tombstone fame) did time in Yuma. Finn was sentenced to 10 years for cattle rustling. The notorious "Buckskin" Frank Leslie, with 14 notches on his gun handle, served a long stretch for the murder of a woman in Tombstone.

Woman Desperado

Best known of all the inmates was the "Girl Bandit" Pearl Hart, prison number 1559, as hard and vicious as any man ever to share these grim quarters. She specialized in stage and train robberies, starting at the age of 17 by holding-up the Florence to Tucson stage. She did well in her hazardous calling until, in 1899, the prison doors opened to receive the 105-pound desperado. Confinement cured her of the opium habit and must also have mellowed her, for she composed a poem now on display at the prison museum.

The walls surrounding the prison were not high, nor was there need for barbed wire atop them. Other factors made jail-breaks a poor gamble. The principal deterrent was the "Tank Station," a large tower overlooking the prison grounds. Guards armed with rifles and a formidable Gatling gun kept watch from the tower. Any convict in a mood for suicide had only to attempt to scale the walls. There he was without cover and under direct fire. And if by some miracle a prisoner did make it over, there was another not-to-be-taken-lightly factor to reckon with: the desert. The obvious escape route—down the Colorado River to the Mexican border, 26 miles away—was well guarded. Indians were always eager

to collect the \$50 standing promise by the government for any fugitive returned.

Despite all this, there were attempted escapes, two of which are worthy of note.

In 1887 seven daring felons took Superintendent Thomas Gates as hostage and fled toward the river. The Gatling gun in the tower could not be used because of the danger to Gates. However, one guard—an expert shot—opened fire with his rifle, and with four deliberate shots dropped four of the fleeing convicts. Gates tried to break away from his captors, and was stabbed in the back. The guards, led by a loyal lifer, ran to the aid of the superintendent, then overtook and captured the remaining three. The lifer was granted a pardon as reward for his unselfish courage. Gates was badly wounded and never regained his health, dying not long after.

Second Attempt

The second break took place in 1890, soon after the return of Captain Ingalls as superintendent. This time the venturous escapees got no farther than the gates, for the Gatling gun mowed them down—the unusual aspect of this abortive attempt being that the wife of Ingalls was in the guard tower at the time. Varying accounts of what followed had her either operating the gun, or at least helping reload it.

The prison was abandoned in 1909, three years before Arizona Territory became the 48th state, when personnel and inmates were moved to the penitentiary at Florence. The buildings were used for a high school for four years (the Yuma high school athletic teams are known as the "Criminals"), then lay idle for more than a generation.

Wind, rain and vandals took their toll. Finally, in 1941, the city of Yuma took the responsibility of protecting and preserving the historical landmark.

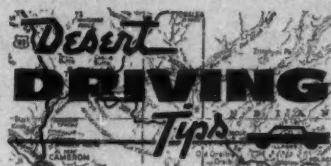
Open to Public

A museum was established in the former mess hall and chapel. The public is welcome—free of charge—to tour the grounds and inspect the 10,000 items on display here. Hours are from 10 to 12 and 1 to 4, Tuesday through Saturday; 1 to 4 on Sundays; closed Mondays.

Motorists will find plenty of parking space and all facilities for a leisurely visit. Picnic tables have been provided for the public in the exercise yard. A spectacular view of the river and the sprawling prison is the reward for climbing the steps to the top of Tank Station. This once-dreaded guard tower is now the Veterans of Foreign Wars clubhouse.

The museum is bulging with treasures of the past, including articles made by the prisoners—ropes, bridles and belts of horsehair. On the grimmer side are the numerous pictures of hangings and hangmen, and the collection of handcuffs and leg-irons.

While most of the cells are locked, there are a few that can be entered; one can get an idea of what it was like to be on the inside looking out. The only occupants now are wasps which cement their nests to the adobe walls.—END



By BENN KELLER, Manager
Ford Desert Proving Grounds
Kingman, Arizona

Vapor Lock

The uninitiated desert visitor touring the desert country on one of its summer days may find his car coming to a bucking halt while negotiating a grade behind a slow truck. The car may produce the well-known symptoms of running out of gas, which is actually what is happening, even though there is plenty of gasoline in the tank. This malfunction is termed "vapor lock" because the fuel in the supply system reaches its boiling point and changes from a liquid to a vapor. Thus the fuel pump is rendered incapable of pumping the fuel—now a vapor—into the carburetor.

Vapor lock is commonly encountered, is not serious, and does no engine damage. The easiest thing to do is "nothing," except maybe raise the hood so the underhood temperature will lower more rapidly and change the gasoline back to a liquid state. This usually takes 15 minutes. Do not run your battery down by repeated efforts to re-start the engine while the fuel still is too hot. If a 15 minute delay cannot be tolerated, pour water over the fuel pump.

Vapor lock can be caused either by an improper grade of fuel or underhood temperatures which have reached a critical maximum. You should shy away from offbrand fuels for desert driving; the additional few cents you spend will be worth it if you have conditions conducive to vapor lock.

Do not stow spare tires, luggage or other material where it will prevent the free flow of air through your radiator. When climbing grades at slow vehicle speeds, manually shift to the next lower transmission gear to speed up your water pump and fan, which will help to keep the underhood temperature below critical values.

POEM OF THE MONTH

BUT, LET THE GADGET FAIL

By CLARENCE ALVA POWELL
Detroit, Michigan

Man is truly insignificant
Against the vast immensity of this,
Unless he hurtles through the hot abyss
Combustion-driven auto-mendicant;
Or winged, mercurial-warrior jet-propelled
Through sepulchres of stratospheric night;
Or fragile-speed in lesser airborne flight,
To observe the prismic marvels held here.

But, let the gadget fail and man descend
To thirsting on the horrors of his face,
Immersed in fantasies of serpent-space
While, senses wrung, implacably the end,
He builds his mansion in the undertone
Of lizards sheltered in the bone-house.

Desert Magazine pays \$5 each month for the poem chosen by the judges to appear in the magazine. To enter this contest simply mail your type-written poem (must be on a desert subject) to Poetry Contest, Desert Magazine, Palm Desert, Calif. Please include a stamped return envelope.

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The Classified Ads in the DESERT MAGAZINE'S TRADING POST

Direct line merchandising, seller to buyer, in the Trading Post (see pages 36, 37 and 38)

SOUTHWEST NEWS BRIEFS

¶ In 1837 fur trapper Antoine Robidoux established a monument near present-day Cisco, Utah, of priceless value to students of history. Taking a cue from the Indians, Robidoux chiseled a handsome inscription on the face of a boulder: "Antoine Robidoux passed this way November 13, 1837, to establish a trading house on the Green or White river." Recently, hunters erected another monument on the site—a monument to their stupidity. Firing high-powered rifles, they defaced portions of Robidoux's petroglyph.

¶ Continued improvement of 368 miles of Navajo-Hopi reservation roads is provided for in the new Federal budget for the fiscal year beginning July 1. Earmarked for the work is \$5 million—the same amount as in the current year. In addition, nearly \$2 million will be spent for work on federal-aid highways across the reservations. Educational and welfare services planned under the regular Navajo-Hopi program will cost \$19.3 million in '60-'61—an increase of nearly \$2 million over '59-'60.

¶ Development of a "waterfowl area" on the Colorado River on and adjacent to the Cibola sloughs between Yuma and Ehrenberg is finally underway, the "Phoenix Gazette" reports. The project was launched several years ago when the Arizona Game and Fish Commission acquired land in that area, and outlined plans for waterfowl resting grounds, habitat for other wildlife, fishing waters, parks and general outdoor recreational facilities. The state recently granted a lease on 1200 acres of the land for fulfillment of part of the general plan. Not included in this initial contract is development of 3½ miles of river front earmarked for a public campground. ¶ Meanwhile, the Utah Fish and Game Commission has voiced approval of a plan to grant sufficient land to the International Waterfowl Association for establishment of a wildfowl propagation and exotic bird center at Farmington Bay on the east shore of the Great Salt Lake.

¶ Boulder City, the beautiful Nevada community that sprang from the Hoover Dam construction site, is now a self-governing municipality after being a "government town" for 29 years. The 3500 residents of Boulder City approved emancipation by a 5-to-1 vote. Hoping to use Hoover Dam and Lake Mead as lures, the majority of residents see a big boom ahead in the tourist business for their town.

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By FRANK JENSEN
P.O. Box 808, Cedar City, Utah

THE PAIUTE Indians had a name for Bryce Canyon in Southern Utah: *Unkaintimpa - wa - wince - pock - inch*, which means, "red rocks standing like men in a bowl shaped canyon."

When March winds sweep across the high plateau country bordering the Colorado River, the rocks of Bryce, standing like grotesque stone men, become more like a thousand Santa Clauses capped with beards of snow.

Utah is snow country from January through March and the Beehive State boasts some of the best skiing and winter scenery in the United States. Just ask any Utahn.

Although Bryce Canyon National Park has more than a quarter-of-a-million visitors annually, few realize the adventure in color awaiting the person who pays a call to this fairland in winter.

At 8000 feet, Bryce Canyon has about four to five feet of snow on the rim from late December until early April, although the roads into the park are kept open year-round as are trails to major viewpoints. For the photo enthusiast lucky enough to catch Bryce after a snowfall, a snow-laden pine tree makes a perfect frame for Bryce's winter formations.

The Bryce Canyon story began about sixty million years ago when much of what is now the Western United States was covered by inland lakes and seas. Some 12,000 feet of silt, sand and lime were deposited in these waters—a conglomerate exposed in the walls of the Grand Canyon, Zion Canyon and Bryce Canyon's colorful formations.

Over the centuries Bryce Canyon has carved its varied shaped pinnacles with the aid of running water, frost, snow, ice and acids carried in the air in rainwater. These natural forces of erosion have accounted for the delicate, sometimes grotesquely-sculptured forms that add to the beauty of Bryce Canyon below the rim.

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Dept. D-2, Palo Alto, Calif.

This year's off-season visitor to Bryce will also find awaiting him a new \$250,000 visitor center and museum, completed in December under the National Park Service's Mission 66 Program.

This visitor center houses, among other things, an auditorium for slide lectures and a museum-exhibit room containing charts, displays and dioramas. The museum recreates more than 25,000,000 years of geological history. One display shows rocks of various ages, some of them a billion years old. In still another display is answered the familiar question: why are the rocks red? One of the museum's most striking displays is a life-like diorama depicting a fox stalking a chipmunk against a Bryce Canyon setting.

The Bryce Park lodge and cabin facilities are closed from October through May.

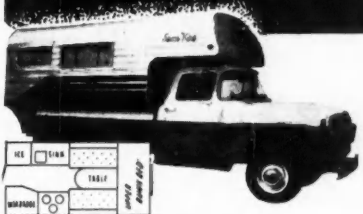
Nearest accommodations during the winter and spring months are at Panguitch, on U.S. 89 about 25 miles southeast of the Canyon. This town, which plays host to many Bryce visitors year-round, has 11 motels and four restaurants. Most of the motels are "modern," and winter rates begin at \$4. In the busy summer, these rates start at \$7.

There are two events of special interest in Utah this month. On March 13, the Junior Ski Classic takes place at Brighton. The Ute Indian Bear Dance is held annually in the Uintah Basin in late March or early April—the exact date is not set until a few days before the ceremonial. The dance is held to celebrate the advent of Spring. For dates of this event you should contact the Roosevelt C of C.—END



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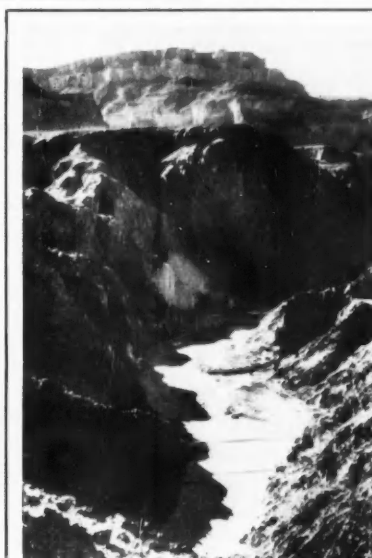
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Bill Hoy photo

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BOOKS of the SOUTHWEST

STRUGGLE FOR SURVIVAL ON THE NAMIB DESERT

1939. Two German geologists in South-
west Africa run off to the Namib Desert
to avoid internment. For two years they
"play at the game of Robinson Crusoe."
They join the leopards and hyenas as beasts
of prey. They begin to fathom the "men-
tality" of Stone Age Man.

From this unusual experience has come
a book, *The Sheltering Desert*, by Henno
Martin, one of the participants. This is
one of the finest desert adventure stories
written in recent years. It is an absorbing
tale, dealing as it does with the funda-
mental human drive: survival.

Martin and his companion, Hermann
Korn, develop special skills in the desert.
They learn how to efficiently kill the "lovely
beasts of the wilderness" (but never with-
out compunction); they acquire the patience
they had so often seen, but never fully
understood, in the "less civilized" African
natives.

Early in their experience the two intrud-
ers gain the full realization of just how
woefully lacking in physical attributes are
human beings—how swift afoot the graceful
springboks, how powerful the jaws of ba-
boons, how fantastic the eyesight of vul-
tures! But, how wonderful is man's brain
(at least it seems wonderful until the two
men get the latest news on the bloody war
raging in Europe).

It may be significant to note that after
the desert adventure ends, Martin and Korn
return to civilization and the latter is
promptly killed in an auto accident.

Published by Thomas Nelson & Sons,
New York; 236 pages of text; 32 pages of
photos; \$5.

J. ROSS BROWNE'S "PEEP AT WASHOE"

A hundred years ago Nevada was known
as Washoe and was in the Utah Territory.
And a century ago the great silver mines
of Virginia City were coming to life. Per-
haps the best, and certainly the liveliest
reports on the frantic Comstock scene were
recorded by J. Ross Browne, who doubled
as reporter and illustrator in his wander-
ings around the West of a hundred years
ago.

"A Peep at Washoe" and "Washoe Re-
visited" are reprints of two humorous ac-
counts Browne wrote for Eastern publica-
tions of the day. The modern reprint, done
in good taste by the Paisano Press, is richly
adorned with almost 90 woodcuts done by
Browne in 1860 and 1863, when he visited
the Carson-Virginia City area.

The flavor and the odor of the Western
mining camp has never been recorded in
better style.

There are 256 pages in the Washoe book.
The dust jacket is smartly done with silver
ink. Price is \$5.50.

COLLECTION OF ELLINWOOD'S "COW COUNTRY" CARTOONS

Tom Ellinwood, *Arizona Daily Star*
(Tucson) editorial page cartoonist, decided
in 1957 that his Sunday cartoons needed a
special theme. He drew one titled, "Beauty
Can Be Practical," showing a cowboy watch-
ing the rain clouds come in. Accompanying
the drawing was an eight-line verse written

by him: *A golden desert sunset / Or an
eagle soaring free / Or cactus blooms in
springtime / Are beautiful to see. / But of
all the sights around me / The one for
which I sigh / Is a pouring summer rain-
storm / When the tanks are nearly dry.*

And thus was born Ellinwood's popular
"Cow Country" cartoon series. Arizona
Silhouettes recently brought out 104 Ellin-
wood cartoons in a paperback book, *Cow
Country*. It sells for \$1.

Ellinwood's cartoons run from the hu-
morous to the sentimental—but they're all
as Western as campfire smoke and sleepin'
under the stars.

Some verse samples:

*Old Sam the cook is doggone good / At
rustling tasty chow, / And also when your
hair's too long / He'll chop it off right
now. / Since this ain't his profession, he /
leaves bald spots here and there; / But you
get saved a trip to town— / Besides, the
cows don't care.*

*There was a lady visitor / At roundup
time this year, / And she just couldn't bear
to watch / Them brand, or notch an ear. /
It hurt the little calves, she thought, / To
treat them all so mean; / But when she
lined up for a steak / Her appetite was
keen.*

REFERENCE WORK ON MEXICO'S WILDLIFE

A much-needed and handsome publica-
tion is the newly released *Wildlife of Mex-
ico* by a University of California Professor
of Zoology, A. Starker Leopold. It is the
first full report on the game birds and ani-
mals of Mexico. Though authoritative, its
facts are presented in highly readable form.

Almost 200 full-page drawings and photos
provide valuable visual aids to the text.
The drawings by Charles W. Schwartz are
some of the finest ever printed in a game
guide.

Though much of the animal life of Mex-
ico is located in the southern or central
portions of the neighboring nation, there
are many species that inhabit our deserts
as well as the arid reaches of Sonora and
Baja California.

Priced at \$12.50, the 568 page book
would repay its cost several times over
for the sportsman or scientist who travels
into Mexico. As a reference it is in a class
by itself. It was published in 1959 by the
University of California Press.

Books reviewed on this page can be purchased
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PATHWAY TO Lost Mine Trek

By THOMAS B. LESURE
6120 N. 18th St., Phoenix

DID JACOB WALTZ really find the fabulous lode known as the Lost Dutchman Gold Mine supposedly located in the rugged Superstition Mountains east of Phoenix? Does it exist today?

Enough people, judging by yearly reports of the prospecting expeditions into the Superstitions, believe he did and that the bonanza still awaits the lucky finder. This writer, weighing existing evidence, is far from convinced that Waltz ever found such a mine. One notarized document alone, recorded in Phoenix, strongly refutes the point. Nonetheless, no matter what I say or hundreds of others claim, the Lost Dutchman legend persists.

Foremost proponents of the story—they've never claimed to have an "in" regarding the mine's location—are the Spanish-attired members of the Dons Club of Arizona who perpetuate and promote lore of the Southwest, and try to create interest and affection for the area in newcomers.

Each March—this year the date is set for March 6—they stage their annual Lost Dutchman Gold Mine Trek in the Superstition Mountains. Quite sensibly, they make no claim that their guests will find the legendary lode. Rather, their purpose is to give a background of the story, and—more important—an intimate and profound understanding of the Southwest.

Except for the Phoenix World Championship Rodeo (March 17-20), which is like rodeos anywhere, the most important March event in the Phoenix area is the Dons Trek. The non-profit group now has a permanent base camp at the eastern-end of Superstition Mountain; it features such structures as a Navajo hogan, Apache wickiup, Papago mud hut and other Arizona forms of native architecture, plus a fair-sized amphitheater in a desert setting,

and other necessary attributes of the Old Southwest.

Central point for the day is still the "search" for the Lost Dutchman Gold Mine. This means a rugged nine-mile hike into the Superstition Mountain hinterlands that shows off many key points in the lost lode story; experienced Dons, leading groups of 35-50 persons, relate the Waltz story and point out principal landmarks. The hike goes up the cacti-dotted hills, past the stone figures of old Pima Indian legends, through the tight-rock flume, past Geronimo's Cave, up to Fremont Saddle overlooking Weavers Needle and back through Peralta Canyon.

It takes anywhere from three to five hours, depending on how energetic you are, to make the hike. At the end of the trail is the base camp where—should you wish to forego the hiking—you may stay all day. Such a repast is hardly monotonous. There's coffee (or tea, milk or cola) plus doughnuts, popovers and other foods to start you off or keep you going all day long. Morning church service is followed by lunch, and such diverse fun as Indian dances, serenading Mexican mariachis, craftsmen demonstrating Navajo rug weaving or sand painting, leather craft, saddle making, pottery fashioning, silverwork and other Southwestern arts and crafts. People who take the "long hike" usually get back in time to see most of these festivities.

About 5 p.m. guests start lining up for dinner, and are quickly served a real Southwestern barbecue—beef as tender as the proverbial dove, beans, salad, rolls, sauce, ice cream and other trimmings.

After dinner, folks gather (smart ones are already there) in the natural amphitheater. About 7 p.m. the preliminary show starts, and shortly after, the Dons' "Legendrama" begins. With a cast of about 50 professional actors and using a natural desert setting, it depicts the story of the Peraltas and Jacob Waltz, the two most prominent names in the lost mine story.

The tale, as the Dons unfold it, lasts for about one and one-half hours. As the play ends, rockets zoom above the mountain. A fireworks display lights up the cliffside, and a fireball tumbles down the steep precipice in spectacular fashion. Trek day is over—for another year—but you'll remember its lodestones for a long time to come.

Also scheduled for March in Arizona are these events: 4-5, Douglas Rodeo; 4-6, Phoenix Gem and Mineral Show, State Fairgrounds; 9-13, Southern Arizona International Livestock Show, Tucson; 26-27,



DONS CLUB MEMBER UNFOLDS LOST MINE YARN

Dons Club bus tour to Grand Canyon (tour price is \$19.95 which includes night's lodging on South Rim—for reservations write Dons Club, 120 E. Van Buren, Phoenix). —END

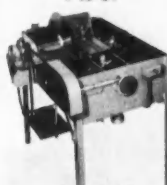
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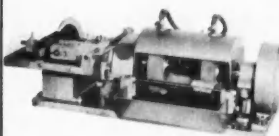
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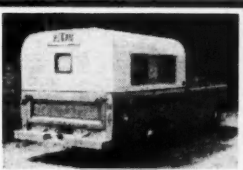
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Navajoland In 1923 . . . continued from page 17

ter in a place so difficult of access. Might not the beauty of Mesa Verde with its deep canyons clothed with conifers, with its cliff caves ready-made for shelter, be reason enough for residence there at any time? One accepts the necessity of protection against marauding tribes—the obvious is always accepted. It is the subtle influences that make life worth living to humans, whether they be stone-age workers or modern machine-age experts. What vast experience speaks in the masonry of the Cliff Palace built by wanderers from the far south! What memories of earnest priests who once sang in the round underground kivas!

After a week of wandering over mesas and up canyons, we approached Canyon de Chelly with its homes of an early people perched high in the rocks. We hired saddle horses at Chin Lee and rode through sand to Red Rock House, the house of happiness of Navajo song. In the silence of midday, with walls of reddish sandstone rising far above the sandy stream bed, we gazed entranced at pre-literate man's adaptation of the cliff caves to his domestic needs. The upper story of the dwelling stands painted white. The lower is of yellow clay color. The Navajos call it the House of Dawn and of Evening Twilight. For them it is the abode of their gods, not to be entered by the people of the earth.

It rises in perfect symmetry, hugging the mother cliff high above crumbling ruins at its base. A pictograph dimly outlined, lifts its hands upward, some reminiscence of the time when Dawn Boy sang of the beautiful trail.

Reluctantly we left the hallowed spot, carrying with us memories that gave us courage to meet bad places on the way. We encountered a furious dust storm. The wind raged on the bare hill tops. It lifted the sand which once was ocean bottom to whirl it against the sun to darken the earth. Down the washes it rushed with its burden of sand to fling against leaning brush, roots of juniper, gray poles of corrals. Driving became impossible.

We stopped near Leupp Indian Agency to take refuge in Sunrise Trading Post. There we met the trader, Nevy Smith, who regaled us with extravagant yarns, canned sausage, crackers and cheese. Despite certain obesity emphasized by a tightly-fitting knit shirt, he possessed sprightliness. Seeing my camera equipment he told us that numerous movie stars and cameramen had worked in his neighborhood but he had never been chosen as a model. He joked so much about his Falstaffian rotundity that I decided to make a study of him to prove that he was as interesting as the rest of the scenery. After we reached Berkeley I developed the plates and sent prints

to him. Overcome by emotion, he wrote:

"Gentle Lady: The rubescent party who obstructed the view around the Sunrise Post has received the photographs, the entire Four-hundred-dollars-worth. Mrs. Armer, I sure do thank you for your kindness and your thoughtfulness in going to all the trouble and expense, of sending me, an uncouth and half-baked Indian Trader such photos and so many of them. I am mailing several to the wife without comment other than: 'Those Valentino and J. Warren Kerrigan persons were sort of over-rated.' By the way, I am sending to you the turquoise earrings you liked so much."

The brilliant stones fired me anew to revisit the land where sky-blue gems were found in ancient cliff dwellings. I wished to paint in the spectacular country. The kindly trader helped me to accomplish my desire by offering a room at Sunrise Post, where I could meet Navajos as they came to trade. My husband and son appreciated the offer. They knew the difficulty of finding a lodging on the Navajo Reservation. They could not accompany me. Sidney must stay with his commercial art designing; Austin must continue at college.—END OF PART I

Next installment: "Because I Wore the Turquoise."

First Over the Tavaputs . . . continued from page 27

row dense band along the moist banks of the river. Yellow prickly pears and cerise-colored hedgehog cactuses were coming into bloom on the sun-washed flats.

Shortly after lunch our trail left the river and began climbing the cliff face, growing ever narrower until it was barely more than a scratch on the sheer face of the rock wall. For long stretches the cliff dropped away so abruptly that the bank of the river—though directly beneath us—was not visible.

As the afternoon wore on we began encountering the deep gashes of side canyons, each one causing us to ride a mile or two out of our way before finding a place where we could cross safely and so continue on our way down-river.

As it had been another hard day for both horses and riders, we were thankful to reach the high rim of Rattlesnake Canyon where only a steep zig-zag trail separated us from our intended campsite among the cottonwoods on its floor. The sun was setting as we unsaddled the horses and turned them out to graze, and before we finished eating supper a soft warm darkness had settled over the silent river and the brown hills.

From Rattlesnake Canyon we continued down-river, occasionally crossing low ridges and sun-burned desert flats. Knowing this would be the last day of our trip, we stopped often to take pictures or admire "pretty views," or just to rest and cool ourselves in a scrap of shade.

At the Hastings Ranch nine miles north of the town of Green River and first point of habitation on our southward trek, we were met by the M4 station wagon and trucks.

"Well, how about it?" I asked Ev Schumaker that evening as the group sat in the M4 chuck house discussing our adventure. "Do you think you'll schedule this jaunt as a regular event?"

Ev looked at me a little oddly. "If I do," he said, "I'll have a man-sized job screening applicants! That wasn't exactly a bridle path we rode over."

Personally, I consider the trip one of the finest I have ever made, and I suspect that my trailmates share my pride in having been members of the first pack train over the East Tavaputs Plateau.—END



By Lucile Weight
P.O. Drawer 758, Twentynine Palms, Calif.

MARCH IS the real beginning of the wildflower season in the California deserts, especially the Colorado and the lower more-protected parts of the southern Mojave Desert. This also applies to Death Valley. But how early in March flowers make a showing depends on whether winter has been mild and rain has fallen at favorable intervals. So far (early February) all looks well. In fact, this could be the best wildflower year—ever!

Down in the far southeast corner, one of the very earliest flowers, the delightful Fairy Duster, may already have bloomed in February if the frost didn't nip it. The delicate feathery flowers (actually it is the rose stamens one sees) are on low shrubs which grow in shallow washes, especially around the Cargo Muchacho Mts. and north from Ogilby on the Palo Verde road. In this same area the rose magenta Beavertail Cactus often blooms in March.

A trio of flowers—Dune Evening Primrose, Sand Verbena and Desert Lily—often bloom together. The combination is especially conspicuous in Imperial Valley along Hwy. 80 between Yuma and Holtville, and in Coachella Valley. The night perfume from them sometimes is overpowering. A closeup view will often reveal these companion flowers: Nama, Desert-star, Lupine, Bigelow Mimulus, Apricot Mallow, Phacelia, Geraea, Chaenactis, Malacothrix (Desert Dandelion), Gilias, Poppies and Mentzelias.

Sometimes in March, the Brown-eyed Evening Primrose forms solid borders along the roads, the delectable fruity odor and wide-open white flowers especially noticeable at night. At other places Dithyrea (Spectacle-pod) will provide the solid border, as it usually does between Hwy. 80 and Ogilby; or again, the fragrant Geraea (Desert Sunflower) will form borders, such as along Hwy. 80 or Hwy. 66 between Ludlow and Amboy.

Ocotillo, a maverick in its blooming times, may start opening its scarlet tubes in March—or wait until April. It is plentiful on dark volcanic slopes and mesas of eastern Imperial County and in extreme western Imperial Co.; spectacular stands are in Borrego Valley.

Working north, Box Canyon (above Indio) is a good place to see desert trees bloom. In "good" years, Paloverde may bloom at the lower end in March. Desert Incense (*Encelia farinosa*) and the rare Mecca Aster may be blooming here in March.

From the head of Box Canyon, on Hwy. 60-70 east past Desert Center to Blythe, these may be seen: Encelia, Desert Lavender, Apricot Mallow, Coreopsis, Loco, Evening Primroses, Ocotillo, Sand Verbena, Malacothrix, and Lupine.

In higher Joshua Tree National Monument, the Joshua Trees and Mojave Yucca usually start blooming in late March; also

at that time come the Isomeris (Burrofat), Coreopsis, Lepidium (Fremont Peppergrass), Malacothrix, Loco and Chuparosa.

On the High Desert, from Yucca Valley, Twentynine Palms and east by paved Base-line Hwy. to its junction with the Desert Center to Rice Hwy., these may be seen: Sand Verbena, several Evening Primroses, Malacothrix, Dithyrea, several Phacelias, Isomeris, Coreopsis, Lepidium, Loco, Rafinesquia, Poppies, Golden Gilias, Geraea; and especially east of Twentynine Palms: Dune Primrose, Sand Verbena, Baileyas, Desert Lilies, Ghost-flowers, Nama, Satin Star, Five-Spot Mallow.

Those who will get off the highways even a short distance will be rewarded by finding flowers not blooming or noticed along main-roads. For instance, in and about the Sheephole, Coxcomb, Ships and Bristol mountains, these may be found this March: Suncups (*Oenothera brevipes*), Larkspurs, Five-Spot Mallow, Rock Daisies, several Gilias, Ghost-flowers, Desert Lavender, Lesquerella, Woolly Eriophyllum, Mimulus, Mojave Aster, Lupines, Yellow-heads, and a large variety of cactus.

Going farther into the Mojave, if February is not too cold the Rand and El Paso mountain districts could have a fair variety as early as March, including pastel Gilias, Malacothrix, Fremont Phacelia, Fiddleneck, Coreopsis, Thistle Sage, Isomeris. If you don't find them this month, they will be along in April.

In Death Valley—again depending on January-February temperature and rainfall—these may bloom in March: Geraea, Evening Primroses, Five-Spot Mallow, Poppies, Sand Verbena, Desert-star, Ghost-flower, Nama, Gilmania, Mimulus and Desert Gold. At higher elevations Mojave Aster might be starting.

POPPIES—AS FAR AS THE EYE CAN SEE—MAY CARPET PARTS OF THE DESERT THIS SPRING

Wherever your spring trip takes you, and whatever your special interest, a book on wildflowers will enhance your enjoyment. If you have had no training in botany you'll find Edmund Jaeger's *Desert Wild Flowers* very helpful. If you want to go farther into identification consult Philip Munz, either his *Manual of Southern California Botany*, or his new *A California Flora*.—END

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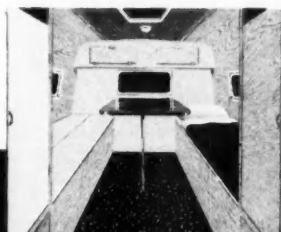
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TRUE OR FALSE ANSWERS

Questions are on page 10

1. False. A new button usually appears with each skin change.
2. True.
3. False. Capitol Reef is in Utah. The name is derived from colorfully eroded rock domes which supposedly resemble the Capitol at Washington.
4. False. Lincoln County War.
5. True. 6. True. 7. True.
8. False. The Dons organization is a modern-day service group helping tourists become better acquainted with Arizona.
9. True.
10. False.
11. True.
12. False. Kino's missionary work in America covered the period 1683-1711. Garces traversed the desert 75 years later.
13. False. Location notice should be placed at point of discovery.
14. True.
15. False. Creamy white.
16. True.
17. False. Fremont River.
18. True.
19. False.
20. False. The Laguna Salada is a dry lake.

PHOTO and ART credits

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Page 9: map by Norton Allen. 20-21: photos courtesy Appleton-Century-Crofts, Inc. 23: Nikolaos N. Kozloff. 26: map by Norton Allen. 33: Phoenix C of C. 35: C. H. Lord.

Hard Rock Shorty



of Death Valley

Hard Rock Shorty finished off the last sardine and threw the can into a bucket under the water stand.

"Dern if'n it don't happen ever'time—ever'time," he muttered to himself, but his words also fell on Pisgah Bill who was still eating lunch.

"What happens?" Bill asked, not looking up.

"Onst I went two years without eatin' 'em, but it still happened," Shorty said, still in the grip of deep thought.

Bill slid his empty can under Shorty's nose. "What happens when ya eats sardines?" he asked.

"It brings back nightmare memories," Shorty answered, genuinely upset. Pisgah perked up.

"It wuz up to Eightball Crick where it happened," Shorty began. "Thet crick was heaped with fish 'an I tried for two or three months to catch one—an' blamed if I didn't 100 percent fail!"

"Musta been a mighty small heap if ya didn't snag one in three months," Bill said.

Shorty got up and crossed the room. He dug in a corner and came up with a black tin box.

"Here," he said pointing with the pipe in his mouth, "is some of th' best dern flies ever made—an' I made 'em. I twisted and scratched every bright thing in these parts into these hooks—an' they didn't catch one fish—an' I swear there were millions of 'em!"

Bill took the box and examined the brightly decorated fish hooks.

"How come these didn't

work?" he asked. "Can't see how come a fish couldn't see 'em."

"I found out how come after three months o' fishin'," Shorty explained. "Thet crick was bone dry thet year an' all them fish wuz swimmin' backwards so's the dust wouldn't get in their eyes."

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APACHE TEARS SURROUND LARGE "TEAR PUFF." HEATED, TEARS CHANGE COLOR AND EXPAND.

Apache Tears . . . FROM AN ARIZONA PERLITE MINE

By LUTHER MORRIS

DEEP IN THE earth a demon stirred, rumbled, expanded, and poked fiery fingers into a fissure in the surface crust. Violent tremors shook the area. The crust buckled and gave way under the tremendous pressures.

No longer imprisoned, the demon burst forth with a roar, unleashing the furies of fire, steam and molten lava, punctuated with thunderous explosions that spewed blobs of the earth's magma thousands of feet into the sky.

Lava poured down the rapidly growing cone. Ash settled in thick layers. Fast-cooled blobs formed into glassy obsidian nodules and embedded themselves throughout the cooling layers of ash and lava.

With internal pressure released, the demon settled back into the earth's core. Volcanic action subsided to steam and smoke, then died completely. Time passed and then came a "wet cycle"—water inundated the area leaving sedimentary deposits of varying depth.

More than 500 million years passed before man with his machinery stripped away the sedimentary layers to tap a commercially-valuable product in the volcanic residue.

Commercial development of perlite from an open-pit mine near Superior, Arizona, makes possible an interesting visit. Until recently it was necessary to park a few hundred feet up the hill from the entrance, to avoid seeing the "Posted—No Trespassing" sign, and sneak through a rusty barbed-wire fence. Unable to police the premises, aware of the dangers where blasting is conducted, and realizing that rockhounds will be rockhounds, the management solved the problem.

Now open to the public on week ends—25c per adult entitles entrance and the privilege of picking up or digging out and carrying home five pounds of Apache Tears (obsidian nodules).

These glassy blobs, with a hardness of 5 to 6 on the Mohs Scale, are prized by rockhounds and lapidaries as semi-precious gemstones. Items of jewelry



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made from the Apache Tears can be found in stores throughout the Southwest.

The tear pit is 64 miles (63 paved) from Phoenix. From downtown take

U.S. 60-70 east, thru Mesa, for 62 miles. At this point start looking for a sign on the right directing you to the pit; you will be able to see Superior directly ahead.—END

Fish Lake Valley, Nevada--another good Apache Tear collecting field...

Nevada's Fish Lake Valley, lying along the California border on the eastern edge of the White Mountains, is a "happy hunting ground" for the amateur mineralogist. The big prize here: colorful Apache tears. The area also contains agates in various colors, jasper, rhyolite, some chalcedony, a few geodes and a scattering of petrified wood.

Fish Lake Valley is a field trip the family car—low-slung or otherwise—will not find difficult to negotiate. *Desert Magazine's* report on this area comes from F. B. Terry of Bigpine, Calif.

From Bigpine (motels, gasoline, groceries, supplies) the roundtrip to Fish Lake, via Westgard Pass, Deep Springs and Oasis, is 150 miles in length. There are no facilities after leaving Bigpine. Water is available in some of the mountain streams, but it is best to carry your own. This is an ideal autumn or spring trip — winter cold and summer heat are extreme in this area.

The collecting field itself has no water and very little firewood—but there is an abundance of wide open space, and you can make a dry-camp almost anywhere you desire.

To reach the main gem field, turn right (east) on the dirt road at Mile 67 from Bigpine. This junction is marked by its proximity to a Nevada State Highway

maintenance station on the main Fish Lake Valley highway (the turn-off is ¼-mile north of the station). A stream crosses the highway just beyond the station.

Travel this east-leading dirt road for eight miles. Near its end it makes a "Y" branch, in the crotch of which lie two old tanks marking the site of the borax mill ruins. Eighty years ago 200 men worked at this borax mine on the floor of the dry lake.

The low hills to the north and the area immediately surrounding them are a prize gem-mineral collecting area. Apache tears from this locality are nearly 90% translucent, with a wide range of color shadings: pink, green and gray. Some opaque specimens are red, black, amber and other colors. The farther north your prospect, the larger the tears tend to be.

At best, this area does not contain an over-abundance of agate, but Terry found some interesting specimens with cream, green and red coloration. Mottled cream and brown jasper was also picked up. The local geodes are not of the best quality.

The collecting area also can be reached from U. S. Highway 6 on the north. Almost immediately after turning south off Highway 6 onto the paved Fish Lake Valley road (Nevada 3A), a dirt trail branches left (east). The collecting field extends from 4.8 to 10.1 miles south of Highway 6 along both sides of this dirt road.—END

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By RANDALL HENDERSON

THE NEW MEXICO State University at Las Cruces is working on a project that will be of interest to all motor travelers. The plan is to install not far from the school campus on a road leading to El Paso what will be known as the "Model Mile."

With the help of experts in agriculture, horticulture, architecture and landscaping it is planned to make the roadsides along this mile of highway a showcase for the orderly display of the state's resources—wherein will be combined beauty, interest and educational values. Included in the plans are two roadside parks which will serve as information centers for visiting motorists.

As far as I am concerned this a much more significant project than sending a rocket to the moon. For the moon is far far away—while all of us have to live with the ugliness that clutters so many of the roadsides here on this sector of our planet. I hope the folks at NMSU will establish a pattern so pleasing and informative it will become a model for American roadside planning.

This New Mexico project brings to mind a conversation I had with a planning engineer some time ago. We were discussing the problem of billboards which more and more are fouling the landscape along all well-traveled roads. He suggested what I regard as a sensible answer to the problem.

"When the human race has advanced a little further along the road to civilization," he said, "it will not tolerate this unsightly device for huckstering its wares and services. Billboards, like the blatant commercials which come over the air waves, merely are the trademarks of an age which gives higher priority to profits than to beauty and moral values.

"These things will pass. I think I can foresee the day when the billboard industry will have gone the way of the dinosaurs—when with only a fraction of the huge sums now spent in disfiguring the landscape, attractive information centers will be erected along the main highway entrances to all communities. These centers will be neat little parks with rest room facilities and complete directories of the merchandise and services available in the town—and a courteous information clerk always on duty."

Perhaps the planners at the New Mexico State University are pioneering a more important project than they realize.

* * *

One of the measures due for action during the current session of Congress is the Wilderness Bill (S. 1123) introduced by Senator Hubert Humphrey and sponsored by 18 senators. The bill, pending for more than two years, originally provided that approximately 50 million acres of federal land in 100 wilderness areas would be preserved permanently as forests, wildlife refuges, and for

scientific and limited recreational use. Public hearings were held last year in Phoenix, Seattle and Washington and it developed that the opposition came mainly from ranching, grazing and mining interests. As a concession to opponents several amendments were approved in committee, one of them extending grazing rights where grazing is now permitted, and another preserving existing water rights within the areas.

Conservation and wildlife groups all over the nation have given strong support to the measure and its sponsors have expressed confidence it will be approved. The conflict over this measure is the age-old clash between private interest and public interest—between those who feel that all the resources of this land should be exploited for private profit, and those who would preserve at least a portion of virgin America for the enjoyment and benefit of present and future generations of our people.

I am sure all Americans are grateful to Theodore Roosevelt and Gifford Pinchot for the conservation program they initiated a half century ago, and I have a feeling that future Americans will be no less grateful to the conservation-minded men and women of today who are fighting to preserve at least a share of the forest and mountain areas as God created them.

* * *

Visitors who have witnessed the ceremonial sings observed by most of the desert Indian tribes generally are more impressed by the rhythm of the dancers than by the music. Indian chants often are sung either in deep guttural tones or in a high falsetto—without much melody. But those songs have a very deep significance, as illustrated by a story once told me by John Hilton, the artist.

When Hilton came to Coachella Valley many years ago the Cahuilla Indians of this area were still holding their fire dances, and John often joined in the chants. During the ceremony an old medicine man would put a live coal of fire in his mouth and keep it there until the fire burned out. This was done to the accompaniment of weird chants from the Indian chorus. One of the young Indians explained why the old man was not burned.

"Easy to eat fire," he said, "if you think right. First you think hand warm, then very hot, then when hotter than fire, fire feels cool—no burn hand. Next, think mouth and tongue very hot, same way. Then fire taste like ice cream."

It sounded easy and John decided to try it. Sometime later he built a fire in the back yard and when the coals were rosy red he plunked one in his mouth—and burned his tongue before he could get it out again. Later he told the Indian about this and asked what was wrong. The Indian merely laughed and answered:

"Huh! Nobody sing!"

A Memo to the thousands of new readers who have recently become acquainted with Desert Magazine:

B A READER SURVEY REVEALS THAT 4 OUT OF 5 SUBSCRIBERS KEEP DESERT MAGAZINE FOR FUTURE REFERENCE!

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C There are many obvious explanations for this startling statistic—authentic maps, travelogs to back-country ghost towns, leads to lost mines—but consider one reason that may not be readily apparent:

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H Here are only a few of the highlights in these volumes:

I — 1958 —
GHOST TOWNS: Skidoo, Seven Troughs, Taylor, American Canyon — many others
GEM-MINERALS: A dozen field trips with detailed maps—Boron, El Pasos, Opal Mts., Chuckawallas
DESERT "HIGHWAYS": Baker-Amboy, Big Bear to Yucca Valley — complete map to tip of Baja California
INDIANS: Acoma, Havasupai, Apaches

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